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ESSAYS, MONOGRAPHS, AND CASES.

A Monograph on Scarlet Fever. By EDWARD H. PARKER, M.D., late Professor of Anatomy and Physiology in the New York Medical College, &c., &c.

"Il n'est pas de maladie qui décontenance plus le médecin; il n'en est pas dans laquelle on soit plus sujet à tomber dans des erreurs de pronostic, et ces erreurs sont inévitables."
TROUSSEAU.

Than Scarlatina, no disease calls forth from physicians a greater variety of opinions as to its pathology, its treatment, and especially its malignity. Some do not hesitate to say that they encounter it without fear, are sure of success in treating it, and only wonder at, if they do not openly blame, those who confess that they dread its approach, are constantly uncertain of its result, and not unfrequently lose their patients. It ought, then, to continue to be an interesting topic to medical men.

The three distinctive peculiarities of scarlatina which separate it from the other exanthemata (the fact of its being an exanthem distinguishes between it and other diseases) are the eruption, the sore throat, and the frequent pulse, and I therefore proceed to consider each of these separately.

I. *The Eruption.*—This is of a red color, varying from a pure and distinct scarlet to a color which has a decided brown, mixed with the scarlet. I do not intend to say that it is a deep and marked brown, but it can be imitated in water-colors, by adding to the vermilion

more or less of the yellowish-brown color, known as burnt sienna. The vermilion has to be *toned* by the sienna to produce it. This coloring of the surface is not caused by a smooth and equal injection of the superficial capillaries; and thus differs entirely from erysipelas, or any other inflammatory blush. It is caused by a true and proper eruption of a succession of points quite minute, but distinctly preserving a general conical figure, so long as they are not so much crowded as to become confluent. This shape can be seen when they are sufficiently isolated either upon the skin, or upon the mucous membrane of the mouth. As the disease progresses, and the eruption develops itself more and more fully, it loses its distinctness, either by the gradual expansion of the base of the cones, as may be seen in mild cases, or by the too near approximation of neighboring cones, crowding all into a uniform and confused flat mass. Still, in this case, there will be found to be some prominences, as if a few cones of unusual height still continued to project from the otherwise level surface; but they are few in number, as compared with the preceding abundance of them, though sufficient to give to the touch that sensation of roughness which is characteristic of the distinct stage.

The period at which the eruption makes its appearance is very variable. I have seen it quite apparent, and already becoming confluent, within half an hour of the time at which the patient first gave any signs of being ill; and I have seen cases in which it did not appear at all. As a general thing, however, it may be said that the eruption makes its appearance within forty-eight hours of the time in which the patient begins to feel unwell. The place in which it first makes its appearance externally is also inconstant. The neck and upper portions of the chest, the inside of the elbow-joints, the groins, and beneath the knee-joint, are the favorite locations, and in those it is to be sought. Before the appearance of the eruption in any of these places, it can often be seen upon the mucous membrane of the mouth, particularly that which covers the soft palate, and upon and about the tonsils.

The facility with which sufficient light can be thrown upon this surface to enable one to inspect it thoroughly, and the ease of the examination, leave no excuse for neglecting to look at it in all suspected or doubtful cases. There can rarely be any occasion for confounding it with the eruption of measles; which, although it may be seen in the same locality, is of a pink color, and presents in its patches the crescentic form. An intense tonsillitis may more reasonably lead to some doubt or confusion; but, although the tonsils are in both cases highly

colored, as the soft palate, a careful inspection will enable one to see that the palatinal throat is roughened by the eruption, while that of simple tonsillitis is highly injected, but smooth. But, wherever the eruption first makes its appearance, it increases, in cases of a typical character, (that is, in those which present no anomaly,) for two or three days in intensity, and then, gradually becoming duller and duller, fades away. During its increase, it gives an increased fullness to the whole surface, which is chiefly apparent on those parts which are of great mobility. Thus the cheeks are stiff, the eyelids are not precisely heavy, but feel thick when raised, the fingers when bent feel clumsy, and the hand seems to be covered on its palmar surface with a thicker and denser skin. As the eruption disappears, there is a corresponding disappearance of fullness; and when it has entirely gone, the shriveled appearance is quite as marked as was the previous swelling. Then the cuticle begins to separate, coming off in large pieces where it is thick and firm, as upon the palms of the hands and the soles of the feet; from both of which it sometimes separates itself in a mass, as it were a cast of the surface. From the body it falls off in a more pulverulent way; not, apparently, from any difference in the effect of the eruption upon the cuticle, but because the constant friction of the clothing reduces it at once to powder. Upon the completion of the process of desquamation, for which no definite period can be fixed, varying, as it does, with the intensity of the eruption and the vigor of the patient, convalescence is gradually established, and health returns to the patient.

II. *Of the Sore Throat.*—Mention has been made of the early appearance of the eruption in the fauces and throat. Corresponding with this is the fact that, from its presence, the contraction of the muscles of the throat becomes disagreeable, from a feeling of stiffness which results from it. But the tonsils are the portions most affected by the disease, and not only present the red appearance before described, but soon become enlarged, projecting into the throat, so as to interfere both with deglutition and phonation. It is, in fact, often easy to tell what is the condition of the tonsils as to size, before examining the throat, merely from the change which they produce in the voice. When much enlarged, the effort to swallow produces severe pain, which is referred directly to the region of the tonsils as its seat. Still, there is not usually at this period any ulceration of the tonsillar surface, to which, by its contact with the fluids or solids attempted to be swallowed, the pain can be referred. Externally, these glands are felt very distinctly, and pressure upon them causes pain. In typical cases, pure

and simple, the redness, the swelling, and the painful deglutition continue for about a week, when they gradually lessen and pass away. But in many other cases, ulceration of the tonsils occurs, sometimes to a fearful extent, grayish-white patches present themselves upon other portions of the mucous membrane, or a proper diphtheritis sets in, greatly periling the life of the patient. But these will be spoken of elsewhere as complications.

III. *Of the Pulse.*—More constant and reliable intimations of the presence of scarlatina may be derived from the pulse than any other single symptom. From the first, it is remarkably frequent, rising in the adult to 120 beats a minute almost with the first signs of illness, and soon reaching, in some cases, 140 or 150 beats. It is by no means the pulse of inflammation, but is quick, almost irritable, as if there were an excessive exaltation of the innervation of the heart. It is easily obliterated by pressure, never forcing its way under the finger against decided resistance, but instantly returning with its quick, sharp motion, when that pressure is lessened. When both the eruption and sore throat are absent, as is sometimes the case, the pulse will, by these characteristics, give quite reliable indications of the disease; while the absence of these peculiarities of the pulse will often enable one to avoid mistaking a cynanche, or a roseola, or even a rubeola, for scarlatina. It is hardly necessary to say that an early and accurate diagnosis is often of material importance, not only for the reputation of the physician, but for the safety of others who may be exposed to the contagion, or to allay the fears of anxious friends.

Accompanying this condition of the pulse, we have a dry, hot, pungent-feeling skin, which gives to the hand, firmly applied to it, a sensation which might almost be said to be tingling. It is similar to, though more pungent, than that felt when the hand is placed upon the thorax of a patient suffering from a violent pneumonia.

I proceed to fill up the portraiture of the disease, the outline of which has thus been sketched.

The most common subjects of this disease are children under twelve years of age; those who have gone beyond that time without suffering from it being less and less liable to an attack, as their age increases. Something of this immunity from age alone is probably due to circumstances, and more apparent than real. In this country, at least, few persons live twelve years without being exposed more than once to an epidemic of scarlatina. If, then, at that age, one has not had that disease, the probability is that he is not so susceptible to it as are the majority of children. And yet, two facts seem to show that when

there has been no previous exposure of persons arrived at adult age, they are not so liable to be attacked by an epidemic as young children. The first of these facts is drawn from a paper by Dr. William Douglass,* describing what appears to have been the first epidemic of this disease in New England, and probably the first in this country. Dr. Douglass says, that "in November (1735) it spread considerably in Boston, especially among children," while throughout the whole paper the patients are usually spoken of as children.

The second fact is drawn from a statement made by Dr. Copland, at the meeting of the Royal Medical and Chirurgical Society, held at London, on the 10th of November, 1858, when scarlatina was the topic under discussion. That gentleman stated, that of the patients who had scarlet fever at the Cape of Good Hope, which had not previously been visited by the disease for twenty-three or twenty-five years, "many had arrived at adult age."† It may here be noted, that of adults it is especially apt to attack pregnant females, and is attended with unusual danger to them, causing a premature expulsion of the fœtus, and frequently the subsequent death of the mother.

Scarlatina resembles the other exanthemata in that it *usually* occurs but once in the same patient, but is also like them in that it may recur once and again, even after the first attack has been marked with a good degree of severity.

So many instances may be found in the practice of almost every one, proving that scarlatina is communicable from one individual to another, that it is unnecessary to quote illustrations of it. It is admitted as a fact. That it may be conveyed in clothing is not so generally admitted, and yet my own opinion is very decided, that it may be so communicated. As illustrations of this, reference may be made to a fact which Dr. J. K. Mitchell, of Philadelphia, was accustomed to quote in his lectures. A frock, which belonged to a little girl who was sick with scarlet fever, was sent to be tried on by another little girl, whose mother borrowed it for that purpose, being ignorant of the illness of her friend's child. Without any other known exposure, the

* "The Practical History of a new Epidemical Eruptive Miliary Fever, with an Angina Ulcusculosa, which prevailed in Boston, New England, in the years 1735 and 1736. By William Douglass, M.D., Boston, N. E. Printed and sold by Thomas Fleet, at the sign of the Heart and Crown, in Cornhill, 1736." This paper has been republished by Dr. Caspar Morris during this year, 1858, as an appendix to the new edition of his valuable Essay on Scarlet Fever, and is well worthy a careful study.

† *Medical Times and Gazette*. London, Nov. 20, '58, p. 535.

second girl, in a few days, broke out with the same disease. I am quite confident that there was no epidemic prevailing at that time. A more marked instance has been communicated to me by a medical gentleman, in whose family it occurred. A servant left his house to attend upon the children of her sister, who were ill with scarlatina. After they had recovered she returned to his house, remaining but a few days, and leaving, upon her second departure, a bandbox in the room which she had occupied. Mrs. — opened the box to see what it contained, and, finding that it was the servant's clothes, immediately closed it again. In a few days Mrs. — was attacked by scarlatina. The clothes, upon subsequent inquiry, proved to be the dress which the servant had worn while acting as nurse with her relatives, and which had been packed up by her without any washing, or even airing. Mrs. — did not touch the clothes, and kept the box open only a moment; but being very near-sighted, was compelled to bring her face close to it, to ascertain its contents. There had been no other exposure, for the disease was not epidemic at the time, and she knew no families in which it could have been communicated to her. It is proper to add, that her husband, Dr. —, was not engaged in the practice of the profession, and the disease was not brought home by him.

It is probable that scarlatina occasionally springs up anew without the previous existence of the disease from which it could have been generated. A fact within my own knowledge, in which; in three successive years, children of families living in adjoining houses were in the same month of each year attacked by the disease, seems to suggest that there may have been some telluric or atmospheric condition which required only the ripening influences of the month of May to bring forth its fruit in disease. The many possibilities of error in the case, especially as to any contagious communication, forbid argument from it. Dr. Douglass, in the paper which I have already referred to, says, in speaking of the epidemic which was observed by him, "*This distemper did emerge 20th May, 1735, in Kingston Township, 50 miles eastward from Boston; it was no foreign importation, Kingston being an inland place, of no trade or considerable communication.*"*

The period of incubation of this disease is very uncertain: in some cases it appearing to be only a few hours; in other cases, many days. One of the most striking illustrations of this is given by Dr. Jacob Bigelow, of Boston. In one of the notes appended to his paper on

* *Op. cit.*, p. 178.

self-limited diseases, that writer says: "I knew a patient to be taken with scarlet fever in forty-eight hours after arriving in this country, by a passage of forty days from Europe. In this instance, as no case existed in the ship, the latent period must have been less than two days, or more than forty."* As a general rule, it is safe to say that, if an exposure to the disease is known or suspected, and a fortnight has since passed without the appearance of the eruption or other symptoms, all apprehension of danger may be laid aside.

The first manifestations of the disease are, usually, sickness at the stomach and vomiting, frequently occurring very suddenly, and without premonition. Thus, a child may awake from a quiet sleep and immediately vomit, the other symptoms following in rapid succession. Headache may precede, accompany, or follow the vomiting, it rarely being absent. The pulse is almost immediately found to be frequent, and to present those characteristics which have already been mentioned. The skin becomes hot and pungent, and may even then, if carefully examined, be found to present the eruption. The fauces may also participate in this condition, and not only be dry, but so swollen and tumefied that deglutition is seriously embarrassed. Occasionally, the stiffness of the throat and difficulty in swallowing will appear before any of the other symptoms. Delirium is often observed from the very first appearance of the disease; and scarlatina is, in this respect, peculiar among the exanthemata. This "wandering" of the mind will not usually be apparent, in the early stages of the disease, while the patient is fully awake, but during his sleep, and especially when waking from sleep. It is a delirium of *talking*, rather than of *doing*. When first aroused from sleep, the patient is loquacious, using the most inappropriate words, or talking of very different subjects from those on which he is questioned. In a moment or two, if fully awake, this usually passes off, and he is found to be in the entire possession of his faculties.

The condition of the tongue is of great interest. More reliance has, however, been placed upon its changes than is safe or correct. At first, a thick, white coat spreads over the surface. This is soft, moist, and pasty. After a longer or shorter time, (in one case a few hours, in another a day or two,) red points begin to show themselves through the white coating. These are the elongated and nude papillæ, and by their position give to the surface a striking resemblance

* Nature in Disease, illustrated in various Discourses and Essays. By Jacob Bigelow, M.D., &c., &c. Boston: Ticknor & Fields, p. 45.

to that of the white strawberry. As the case goes on, this white coating separates itself, and, disappearing, leaves the tongue of a scarlet hue, rather dry, and with the papillæ still very apparent. The resemblance is now to a red strawberry, though, to my own eye, it is not quite so striking as that to the white. The diagnostic value of this appearance has been overestimated. The projecting papillæ are not unfrequently seen protruding through a white coat in gastric and enteric fevers. While writing, I have under my care a child with gastric fever, whose tongue resembles a red strawberry, though its color is not quite so bright as in scarlatina.

As to the bowels, there is sometimes a decided constipation; at other times there is a diarrhœa. This variation is important, and to be remembered; for cathartics, and especially active ones, are by no means to be used indiscriminately. The prostration produced by them sometimes adds fearfully to the dangers of the disease.

Thus commencing, scarlatina goes on in a constant manner. The eruption increases in its extent until the whole surface is covered, and deepens in its color until the disease begins to decline. At this time the fever diminishes, the pulse becomes less frequent, the heat abates, the thirst lessens, and the whole condition of the patient improves. The throat, however, continues to be painful for some time after there has been a decided amelioration in all other respects. The delirium, which increases at night so long as the fever increases, and, in cases of a grave character, may be continuous through the day, lessens as the disease abates, but still occurs occasionally at night, till convalescence is fairly established.

Thus I have sketched what may be termed a typical case of the disease, one presenting all its characteristics, and terminating in recovery, without any hindrance to its regular progress. Now, it is necessary to say that such cases are comparatively rare. This regular beginning, rise, progress, and decrease are often seen, but much more frequently there is some departure from this course. These variations, these departures, may be in any part of the disease, and in every particular, from the beginning to the end of the attack. Many are the instances, not only where death has occurred in consequence of them, but, when this has not happened, they have changed the whole life's prospects.

I proceed to sketch those variations which are common and important.

First. Of Variations which concern the Eruption.—The fact has already been alluded to, that the eruption does not appear at all in

some cases. These, however, are not of necessity mild in their character, or happy in their end. A most striking illustration of this is thus given by Prof. Trousseau, in his lecture on scarlatina. The patient was "a young American girl in a school at Paris. She had been affected since morning by an alarming delirium. She had an intense fever, and incessant vomiting; the pulse was so frequent that it could not be counted; the skin was remarkably dry. These phenomena caused me to say, when we reached the bedside of the patient, that it was scarlatina; and, in fact, although nothing else demonstrated its existence, my diagnosis was confirmed by the presence of the characteristic eruption upon another young girl of the same school, where an epidemic of scarlatina prevailed. Our patient died before the end of the day." Cases in which the eruption is absent are to be watched for a length of time after recovery appears to be established; for there may arise some of the dangerous sequelæ of the disease, even when they are not anticipated.

The eruption often appears partially; that is, without covering the whole of the surface, but only portions of it. Such cases are ordinarily accompanied by grave symptoms, and this irregularity of eruption is often considered a very grave sign. My own experience, however, does not confirm this opinion. I have seen quite a number of cases in which the progress of the disease has been perfectly simple, though the eruption presented this irregularity. It is generally about the joints and on the side of flexion that these patches present themselves. Especially do they prefer the large joints, the knee, and the elbow, about which they extend in an irregular form; though chiefly upon the more delicate skin, on the under and inner sides respectively.

When the eruption, whether local or general, has, instead of the pure scarlet, the burnt sienna tinge, of which I have before spoken, the case may be considered as a grave one, if in its earliest stages. When the eruption is fading the appearance of this shade is comparatively unimportant, though in this case it is well to be on the guard against sudden and excessive prostration. But it is sometimes noticeable from the first breaking out, and when seen at this period indicates to the physician the necessity of great diligence and watchfulness, for he has to contend with a fearful disease.

Second. *Of the Variations in the Condition of the Throat.*—Many of the cases of scarlatina resulting fatally do so in consequence of changes carried on in the throat, and these changes are among the most difficult to be treated. Instead of the simple swelling of the

tonsils, the stiffness of the muscles surrounding the fauces, and the scarlet color of the walls of the pharynx, we may have a dirty-white, pultaceous deposit upon the surface of the tonsils, or mucous membrane, or both, and the stiffness may amount to an almost complete rigidity of the jaw and throat. Upon removing this deposit from the surface of the mucous membrane, we find no particularly striking appearance beneath it. The surface is red, like the rest of the membrane; possibly a little smoother. On the tonsils there is often found to be underneath it an ulcerating surface, making excavations into the substance of the gland. The exudation may extend, and unless measures are taken to prevent its doing so, is very prone to extend over the soft palate, (being almost certain to appear on the extremity of the uvula, even when it does not cover the rest of the palate,) up to the posterior nares, towards, if not into the Eustachian tubes, and down the pharynx. It is a point of great interest that *this* exudation does not tend to enter the larynx. Why it is so is uncertain, though probably due to the differences in the epithelium of these parts. The fact, however, remains. But let me not be misunderstood. An exudative inflammation, possessing some of the characteristics of this variety, does invade the larynx, but the two are to be distinguished from each other.

The history of the second variety is usually this: The patient in the commencement of the disease has no other than the ordinary symptoms, at least so far as the throat is concerned, and goes on towards an apparently rapid convalescence, when, just as this is expected, the soreness of the throat increases, the pulse resumes its frequency, but is weaker than before, there is a distinct swelling of the neck externally, and internally a blackish-colored deposit is visible upon the fauces. The breath becomes offensive, the prostration extreme. Soon a thin, sanious, irritating discharge oozes from the nose, excoriating all the surface on which it flows. *This* exudation will take its way into the larynx, not always, but inclines to travel in that direction. It is scarcely necessary to add that, under these circumstances, the patient's life is in very great danger. The physician has, in fact, to contend with *diphtheritis*, and in a patient below *par* as to his strength and vitality.

This, like the milder exudative inflammation, may extend in all other directions along the continuous mucous surface, but wherever it goes its effects are much more serious. Sight, smell, hearing, and even taste, have been destroyed or impaired by it, and still life has been spared.

It is to be regretted that it is so much the custom to speak of this condition as being *croup*. There is indeed a covering of exudation upon

the mucous membrane of the larynx, and perhaps the upper part of the trachea; but it is soft, easily wiped off, not at all firm and consistent, and very rarely, if ever, endangers life, by blocking up the air-passages. The danger is from the overwhelming prostration—the effect of the disease directly upon the vital energies of the patient, not of an impeded or deficient aeration of the blood. Under these circumstances, it is as unfortunate as it is erroneous to call the disease croup, carrying with it, as that name usually does, a depressing and perturbing treatment.

I have dwelt upon these different characteristics in the exudations, because, although it is some time since they were first pointed out by Trousseau, they have not been generally recognized by the profession, and yet I am certain from my own observations that the distinctions are well and properly drawn.

Both of these exudative inflammations may interfere with the hearing, either temporarily or permanently. The temporary interference is due in part to the congestion and slight tumefaction of the lining membrane of the Eustachian tube and inner ear, tending to close that passage; and in part to the same effect resulting from the accumulating exudation. But the permanent deafness is due to more serious organic changes. In some cases of the diphtheritic exudation, there appears to be entire destruction of the auditory apparatus, but it is usually the perforation of the membrane of the tympanum that causes the deafness. Our asylums for the deaf and dumb bear abundant evidence to the frequency of this occurrence. I shall avail myself, however, of an interesting paper lately published* by Dr. E. H. Clarke, of Boston, upon perforation of this membrane, to illustrate this point. Of fifty-two cases collected by him, in which the membrana tympani was perforated, in nineteen it was attributed to scarlatina. In all but five of these there was perforation of the membrane in *both* ears. Of the whole number collected by Dr. Clarke, (52,) the cause was unknown in fifteen. If these be excluded, we have remaining thirty-seven cases, in eighteen of which scarlatina caused the perforation; and in one, one ear was perforated in consequence of this disease, and the other by another cause. Thus only eighteen cases are left out of thirty-seven in which perforation was known to be due to other causes than scarlatina. Omitting the case which presents two perforations, one from scarlatina, and one from another cause, and we have eighteen cases attributed to scarlatina, and eighteen to other causes. Now in the first,

* *American Journal Medical Science*, Jan., 1858.

or scarlatinal eighteen, there were thirty-two perforations, (that is, in fourteen of the cases the membranes of *both* ears were perforated;) while in the second, or miscellaneous eighteen, there were twenty-three perforations, the double perforation existing in only five cases. The fifteen cases which I have excluded in the preceding estimate, in consequence of the cause of the injury being unknown, gave double perforation in only three instances; so that, although there may be some cases among this number caused by scarlatina, there is no comparison for seriousness with those authoritatively attributed to this exanthem. The miscellaneous causes were cold, syringing the ear, measles, pneumonia, typhus fever, pertussis, eczema, puncture, salt-water bath, and teething.

It is in connection with the diphtheritic exudation that we have the formation of cervical buboes. The glands principally affected are those of the deep-seated chain of lymphatics. The swelling and pain caused by them are different from the swelling and hard infiltration of the superficial tissues of the neck. There is not the same tense, solid surface, which to the touch resembles so much the outside surface of a piece of salted pork. The bubo is felt to be underneath the skin and deep fascia, is limited in its dimensions, being usually defined with ease, and is often intensely painful. If the inflammation of the gland goes on to suppuration, the usual signs of such changes are present.

Third. Of Variations which involve the Nervous System.—When the nervous system is, so to speak, the centre of attack selected by the disease, the case becomes at once most serious. The severity of this attack may vary from the slightest disturbance to the complete overwhelming of its functions, when a speedy death ensues. I do not now speak of that delirium which has already been described as existing in many cases which may be classed as typical.

In some cases the first symptom of the disease is a violent convulsion, which may be followed by a regular course of the disease, there being no other variation from a typical case. As this is not always so, the occurrence of a convulsion justifies a guarded prognosis, and should lead the physician to watch the patient closely.

But there is another class of cases, not very rare, present to a greater or less degree in every severe epidemic, and which require prompt action, if anything is to be attempted for the benefit of the patient. In referring to those cases in which the eruption does not make its appearance, I have quoted one case of this class from Prof. Tronseau. Here is another from the same authority: "In 1824, at the commencement of that disastrous epidemic which broke out in

Tours, of which I have spoken, we saw, with M. Bretonneau, a young woman die in less than eleven hours, with terrible symptoms—delirium, excessive agitation, extraordinary frequency of pulse; and nothing indicated scarlatina to us, excepting that we were in the midst of an epidemic, and that many persons in the family of this young woman had had it."

A case similar to this in some respects, though differing from it in others, lately occurred in my own practice, and will serve to illustrate another phase of this mode of attack.

On Sunday evening I was called to see a lad, about 13 years old, at a boarding-school. He was dead when I arrived, (a few minutes after I received the summons,) and I obtained this history of the case: On the morning of the preceding day (Saturday) he had not appeared to be well. Some simple domestic remedies were administered, but he grew worse, and the usual medical attendant of the school was sent for. It was eleven o'clock in the evening before Dr. M. saw him, when he found the eruption of scarlatina covering the whole surface, but the patient in as favorable a condition as he could expect. The throat was not very sore, and there was no particular complaint of headache. Directions for the night were left by him, and in the morning (Sunday) he saw his patient again. This was about eleven o'clock. The eruption was then fully out, rather intense in its color, which was a bright scarlet, and the other symptoms the same as at the preceding visit. He left him without any grave anticipations. The patient was carefully watched during the day, an assistant teacher being almost constantly with him. His delirium was slight, his mind wandering chiefly to his studies, of which he was fond, and in which he was remarkably advanced for his age. In the afternoon he was quiet, and about six o'clock in the evening attention was drawn to his being so still. He was found to be just breathing out his last. The body, when I saw it immediately afterwards, was lying in the position of one quietly sleeping. There was no indication of convulsions having preceded death, and I had the assurance of the intelligent attendant that there had been none. In this case, death occurred in less than 36 hours from the time at which the boy was first noticed to be ill.

A case of a similar character, though more protracted, I also give from my own experience. The patient, a child three years and a half old, began to vomit upon waking at his usual hour on Sunday morning. He threw from his stomach undigested food, taken early the previous evening, and seemed relieved. Within half an hour, however, the scarlatinal eruption was observed about the chest and joints, and the

headache, hot skin, and frequent pulse at once developed themselves. On Saturday the patient had appeared to be perfectly well, and had taken a very long walk with his parents. No suspicion of his being ill was in their minds till he vomited. During Sunday the eruption continued to spread from the localities in which it first appeared until it covered the whole surface. It seemed to promise to be a regular case in its progress, though a severe one. There was no delirium, no subsultus tendinum. On Monday it began to be rather difficult to arouse him, and there was marked delirium when aroused. An occasional sigh in the respiration attracted notice, and was thought to justify an unfavorable prognosis. On Tuesday there was more marked coma, the sighing was more frequent, and deeper. Some subsultus tendinum was apparent. There was but little sore throat. The sienna tint of the eruption, which was noticeable on Monday, grew deeper; the teeth and tongue were covered with a brownish crust, and all of the symptoms were aggravated. During Tuesday night the coma increased, and the patient died quietly, and without convulsion, early on Wednesday morning.

In all these cases the nervous centres are the points on which the disease makes its assault. They are, so to speak, overwhelmed by the poison of scarlatina, whatever that may be, and the patient dies, not from any organic lesion, so far as can be discovered,* but from interference with the functions of these centres, upon which life depends.† The succession of phenomena, especially as seen in cases similar to that which was last described, reminds one of the progress of symptoms in a patient who is being brought under the influence of anæsthetics, and it seems to be a proper conclusion that the interference with the functions of the brain is in the same order of sequence, death occurring when the medulla oblongata has yielded to the poison.

It is not in itself, and its accompaniments, that scarlatina is alone fearful; but also in the diseases which follow in its train. These re-

* Dr. Jacob Bigelow, (*op. cit.*, p. 44,) after referring to three post-mortem examinations of such cases—one in his own practice, and two in that of his friends—says, “in these cases the poison of the disease seems to destroy life, without exciting inflammatory action.”

† Dr. William Douglass, (*op. cit.*, p. 181,) makes three classes of varieties in this disease; the first he describes thus: “Those who die the first, second, or third day of illness, by an irremediable necrosis of the œconomy: in such the seizure is generally sudden: a sinking pain in the stomach, an extreme prostration of strength, a titubating, low pulse; in some a stupor; in others a delirium; in some children convulsions; and all of them generally die dozie.”

ceive the name of *sequelæ*; and, as generally enumerated, are, some of them, simply the continuance of diseases present with the fever, but which have not disappeared when that abated; while others are new diseases following the fever, but not existing while that was present.

In the first of these classes may be enumerated the affection of the temporal bone, whether in its petrous portion, or in its mastoid cells and process, which sometimes is the result of the invasion of the ear by the diphtheritic inflammation. The destruction of the membrane of the tympanum is not uncommon in the progress of the disease, and is frequently accompanied by the discharge of the auditory ossicula. But when the disease has extended still further, necrosis of the bone is the result, and its removal by the processes which nature sets up for that purpose must take place. This tediously slow removal of the dead bone continues to go on long after every other sign of the fever has disappeared; so that though, in its commencement, synchronous with the scarlatina, it may by its presence, for months, and even years, bear witness to the presence of that disease.

The cervical buboes, which have been spoken of in another place, may also be classed with propriety under the same head. It is comparatively rare that they go on to suppuration, till after the fever has begun to decline, if not to disappear. They may then drag along a slow course, discharging pus for a long time if neglected, and with the continued effect to keep the patient weak and prostrated.

Rheumatism may be enumerated as a disease properly following scarlet fever; that is, it should be classed in the second division of the *sequelæ*. It is of frequent occurrence, usually is not severe, and on this account may be overlooked, though it is important that it should not be. That patients usually recover from it is a great satisfaction to the physician; but, unfortunately, this very thing may blind him to the grave changes which sometimes result from it, and which need to be encountered at their very commencement. Pericarditis, endocarditis, and pleurisy, may be its companions, and results; while at other times it causes suppuration within the joint which it has attacked, destroying its usefulness, if, indeed, it do not kill the patient. An endocarditis, which has been unnoticed, may be the origin of lesions within the heart, which are not fatal for years. A neglected pericarditis will produce permanent injury of the heart, which, though not of necessity fatal, may make life a burden. There is sufficient authority for saying that suppuration may also take place within the pericardium. When inflammation of the pleura occurs, there is a marked tendency in it to pass into the suppurative stage. Thoracentesis may

be required to remove the pus; but, although there should be no hesitation in performing the operation when it is necessary, it should be remembered that it may leave a fistulous orifice, which will require a long time to heal it. All of these affections may be grouped together, as having a common origin, and consisting in inflammations of serous tissues, for the rheumatism is almost invariably articular. It may be added, that they are not more frequently met with, after severe attacks of scarlatina, than after those which are of a typical character, or even milder than these. The period of desquamation is that in which these diseases are apt to appear.

It is at the same period, and in the same class of cases, that we most frequently meet with a sequela more commonly recognized, and anticipated. I refer to anasarca, with or without dropsical effusions into the serous cavities. More or less complete suppression of urine accompanies this disease, and is sometimes the first indication of changes in the kidney, similar to, if not identical with, those of Bright's disease. But there is no satisfactory evidence that such changes have of necessity taken place previous to the appearance of the anasarca.

The position of the patient has much to do with the locality in which the œdema first attracts attention. In a child that is running about, there will first be a little swelling of the feet and ankles, which by the characteristic pitting, upon pressure, gives distinct proof of fluid in the areolar tissue. This may increase very rapidly, and within twenty-four hours seriously interfere with the movements of the limbs. But if the patient has been confined to the bed, the loose tissue of the eyelids will be first infiltrated, and become puffy, the difference being entirely dependent upon position, and not upon the character of the disease.

The history of these cases of anasarca usually runs in this way: After an attack of scarlatina, mild in every respect, there is, during the period of desquamation, a sudden diminution of the quantity of urine, (what little there is being sometimes tinged with blood,) accompanied by more or less swelling of the feet, legs, and hands. This swelling extends to the body and face, until the patient presents the ordinary pale, bloated, doughy look of general anasarca.

In the majority of instances, with proper care, the anasarca passes off, and the patient is restored to health. At other times, these symptoms are accompanied by grave structural changes in the kidneys, which in time, and it is sometimes after years have elapsed, destroy the life of the patient. In other cases, which fortunately are not common, convulsions suddenly occur, and are the first indications of cere-

bral difficulties, which usually terminate fatally. When pain in the head and loss of sight occur in a patient with anasarca, convulsions are to be feared, and active measures should be taken to ward them off. Care is necessary, however, that a mistake should not be made, by confounding uræmic convulsions, arising from the deficient secretion of the urea, with those which result from effusion upon or within the brain, the result of inflammation of its membranes.

Taking cold, imprudent indulgence of the appetite, or some other similar irregularity, is often pointed out as the cause of the anasarca; but it must be admitted, that it occurs in patients who have been the most carefully and the most successfully guarded from all such influences. And it must at the same time be confessed that the pathology and etiology of the mild cases, especially, are obscure. The statement has been made that albumen is found in the urine of one out of every three scarlatinal patients, if the disease is well marked during the period of eruption; and this, together with the occasional occurrence of hæmaturia at the same period, would seem to point to the kidneys as especially susceptible to the influence of the scarlatinal poison. It is thus very evident that the careful practitioner will give constant attention to the condition of this secretion from the beginning to the end of the attack, and that whether the case is mild or severe.

(TO BE CONTINUED.)

Notes and Sketches preparatory to a Treatise on Diseases of the Tropics; or, Physician's and Surgeon's Vade-Mecum in Tropical Countries.
By GERARD VAN ARCHEN, M.D., Bogotá, New Grenada.

BOGOTA, NEW GRENADA, July 2, 1859.

EDITORS AMERICAN MEDICAL MONTHLY—In sending you the inclosed manuscript, I feel that I must say a few words to explain its nature; a duty which I owe as well to you as to the public.

Some years ago, while traveling in the plains of Venezuela, I found myself so situated as to have from two to six hours every day to spare. Not knowing how to occupy them, and fearing that, by a long-continued idleness, I might fall into the open arms of some of the fashionable vices, I determined to commence a general work on diseases of the tropics, which might serve as a practical guide for new-comers, and by means of which they would save most of the time which I had to lose in studying each disease. But I soon saw that such a work would have too little interest; and although I tried to enhance its value by

giving a short description of the modifications which each disease undergoes in tropical countries, still it did not satisfy me, and—was buried in my portfolio.

Some weeks ago the manuscript again fell into my hands, and an idea struck me that it might serve in a more condensed form. Accordingly, I set to work, and included you find the first series of it, in the form of notes and sketches. As soon as the balance is concluded and a good opportunity offers itself, I shall send it on.

Yours truly,

G. VAN ARCHEN.

Prostration, or Collapse.—The most frequent causes of prostration are, great and sudden extremes of fear, grief, or joy; the depressing effect of some poisons, as arsenic, tobacco, etc.; a sudden shock to the nervous system, consequent upon a great loss of blood, mechanical injury, or some surgical operation.

Prostration becomes very dangerous in hot countries, on account of the low tide of the vital powers, which hardly ever contain, of themselves, the necessary strength to bring about a complete and ample reaction.

If the prostration is purely functional—that is, unconnected with any mechanical injury—a glass of old Madeira or Sherry wine will assist the system in rallying; habitual drinkers, however, require several strong doses of brandy-and-water, to which some cinnamon or ginger may be added.

But cases brought on in consequence of some injury or operation are apt to be of a much more serious nature. Warmth and circulation must then be restored by heated bricks or bottles of hot water to the soles of the feet, between the thighs, or under the axilla, and frictions made all over the body with hot brandy, strengthened by liq. ammon.; while vomiting is best allayed by a large dose of opium, or a blister to the epigastrium.

Convulsions, delirium, and coma must be treated according to the degree of reaction; taking care, however, never to lessen the vital energies, which may always be done by withdrawing for two or three hours all stimulating medicines.

In one desperate case of prostration from epistaxis, I succeeded in saving my patient by making a partial compression of the brachial and femoral arteries, for the purpose of keeping the blood in the vital organs, and giving half-ounce doses of tincture of musk, at intervals of three hours. Everything else had failed in this case; even the si-

multaneous exhibition of five blisters produced only a slight and temporary reaction.

There is little danger of overstimulating a patient. Whenever a point is reached at which this might happen, then suddenly the skin and kidneys rush to the rescue, and, by a powerful diuresis and diaphoresis, obviate any evil consequence.

Hard drinkers always perspire very much, which fact has made them believe that a profuse perspiration is indispensable to health. Still, it requires but little knowledge of the human body to see that, in such cases, the profuse perspiration is nothing but an act of rebellion of nature, manifested by throwing off its too heavy load of ardent spirits by one tremendous effort.

Hæmorrhage.—One of the most common diseases in hot climates is hæmorrhage from the womb, or menorrhagia. It happens in subjects of all ages and conditions. On examination, it will mostly be found to be a passive or venous flooding, caused either by a chronic inflammation of the womb itself, or by an impediment to the return of the venous blood to the *venæ portarum*. As a palliative, the os uteri should be plugged with a sponge soaked in the following solution:

R.—Sulph. Zinci,	
Sulph. Alumin. et Potassæ, ää.,	3ss.
Aquæ Fontan.,	3ij. M.

The vagina may also be filled with a sponge thoroughly soaked in cold water, to be frequently renewed, and the vulva and hypogastrium kept covered with cloths wrung out of iced water.

But to effect a radical cure, besides removing diseases of the womb itself, there will generally be found to exist a complication with some disease of the liver, stomach, or spleen; and before such a complication be removed, any remedy directed against the womb itself is worse than useless.

When the cause of the flooding is difficult to account for, I make it a habit to give large doses of gum kino, with a little alum added, until the hæmorrhage ceases, and then to administer some drastic purges; returning to the astringents as soon as the flooding returns.

In the course of this treatment, then, I have ample time to examine and observe the patient at leisure; a thing frequently by no means easy, for women in this country object very much to vaginal examinations. Besides, being of a stubborn nature, they prevent the physician, by all possible means, from making a correct diagnosis, instead of assisting him.

Venesection.—Of all the operations of minor surgery, none is less frequently employed or performed in hot countries than blood-letting.

A prolonged residence in the tropics reduces the plastic substance of the blood to such an extent, that no morbid process or infection can make it desirable to reduce it also in quantity. I have only bled twice in nearly ten years of practice: one was a case of active aneurism of the heart; the other, apoplexy in a plethoric subject; both patients died, but, as a matter of course, that had nothing to do with the bleeding.

Although I have attended to more than 1,400 patients of yellow fever, I have never bled a single one; and still, my highest mortality was, in Vera Cruz, 34 in a 100, and my lowest, at Port au Prince, 21 in a 100. If it is necessary to reduce a patient, a two days' weak broth diet, with occasional doses of tartarized antimony, will bring him low enough.

Still, in some exceptional cases, bleeding may become imperatively necessary. In such cases, a pretty tight bandage should first be applied at about three inches above the elbow, and the part below it then well wetted with hot water. Without this expedient, it will sometimes be very difficult indeed to find the median cephalic vein; a thing by no means easy in dark-skinned and rather fat people.

Most commonly, leeching and cupping are sufficient, especially if the disease be local. Leech-bites do sometimes become troublesome, after bleeding. I have never found any difficulty in controlling it, by rubbing some sulphate of zinc or calcined alum into the wound.

Chloroform.—The administration of chloroform, whether for the purpose of producing anæsthesia, or for calming pain, should always be done with great caution, and never be carried any further than the 3d degree, or that of profound sleep. An assistant should attend only to the inhalation process; he must watch the patient closely, and give another dose as soon as symptoms of coming-to occur.

It takes much less chloroform to produce this effect in a native of the tropics, than in an inhabitant of a more northern climate. Consequently, there is also more danger of giving too much, that is, of chloroformizing the patient into eternity.

Besides the general rule, of never giving it to those who suffer from organic disease of the heart or lungs, or from epilepsy or asthma, I would add the one of never giving it to those who suffer from chronic nervous disorders; for in these cases the morbid sensitiveness of the nerves, after being overcome by chloroform, suffers a sudden collapse,

and instantaneous death follows, either from paralysis of the heart, or sudden cessation of function of the pneumo-gastric nerve.

Effects of Poisonous Insects and Serpents.—The most common of the poisonous insects is the scorpion, the bite of which, although so much dreaded by nervous and apprehensive females, is never of any consequence. The Indians in some parts of the Spanish Main, after being bitten by a scorpion, take a leaf of tobacco, chew it for a minute or two, and when it is well saturated with saliva, lay it on the bitten place.

I was myself once bitten by a scorpion in the point of the little finger; it produced a feeling as though a very fine needle was deliberately being pushed up between flesh and bone. Five minutes after the application of a tobacco-leaf, all pain suddenly disappeared, as if by charm; but I suppose touching the wound with an alkali does just as well.

The fabulous tarantula, of South America, about which travelers, who never saw the animal, tell such horrible stories, produces simply some swelling, which is easily cured by scarification and cauterization, together with an occasional internal dose of liq. ammon. arom., or aromatic alkali.

The rattlesnake, called in Spanish *culebra-cascabel*, and a variety of the cobra, are the only animals whose bites are really to be dreaded.

As soon as possible after being bitten, the part should be bound above the wound, for the purpose of trying to prevent the poison from being carried into the circulation; the whole bitten part should then be cauterized by caustic potash, or the red-hot iron. A solution of arsenic, containing about a grain, should then be administered every hour, until copious purging follows. The swollen parts may also be rubbed with strong liniments, and the patient must be kept awake by washing head and face with cold water, and holding ammonia occasionally to the nostrils.

Should the skin of the swollen parts become much distended, long incisions may then be made, for the purpose of letting the extravasated fluids escape; after that, emollient poultices, mixed with plenty of powdered charcoal, may be applied.

Guinea-worm, or *Filaria medinensis*, is sometimes met with in this country, and the natives make a great deal of noise about no physician knowing how to get it out of its lurking-place, under the skin. I have only once been called upon to cut one out; and in that case, after having made a long incision, exposing the animal to view in several places, I commenced tickling him all over with a cataract needle, dipped

frequently into a strong solution of strychnine. Only twelve hours afterwards he could be removed, piecemeal, with the greatest ease; I then cleaned the wound with black wash, and filled it with small bits of lint; in eight days it was entirely healed.

Pulex penetrans, or jigger, also called sand-flee, is another troublesome little animal, which mostly buries itself under the skin near the toes, where it envelops itself with a cyst, in which there is also a number of eggs, floating in a muco-purulent fluid. I introduce one point of a scissors into the bag, and, by making with the hand a circular movement, cut out a round piece of skin. I then remove the contents with a common *curette*, and rub a little calomel into it.

I must caution physicians newly arrived in the tropics against the extravagant stories of the natives about tetanus resulting from the extraction, by foreigners, of either of the two last-named parasites. This is done partly from ignorance, and partly from cupidity, they wishing to get a few dollars for martyring you a couple of hours, pretending all the time not to hurt you at all.

I have extracted from my own feet at least 200 jiggers, without any evil consequences whatever; nor have I ever heard or seen of a case of tetanus produced by treating these little annoyances after my fashion.

Whitlow, or Paronychia.—This is a complaint which frequently occurs during the period of convalescence of typhoid fevers, or to foreigners shortly after arriving in the tropics, especially if they have not purged themselves well.

If called to a case, still in its beginning, I order two ounces of sal-æteratus, or crude carbonate of soda, to be dissolved in about four ounces of boiling water; in this the finger should be held until the solution cools, which should then again be warmed and kept applied for three or four hours. In nearly all the cases, this abortive treatment is sufficient to effect a cure.

In more advanced cases, the whole finger should first be wetted and then rubbed with a solid piece of nitrate of silver until the skin becomes discolored; the finger must then be kept in an emollient poultice, until, at the end of thirty-six hours, the whole of the cuticle peels off, and the cure is complete.

But as soon as lancinating pain and throbbing occur, a sure sign of suppuration, the finger should be cut open to the bone, and, after bleeding has been encouraged by tepid water, be dressed with simple dressing. During this treatment an occasional dose of salts may do good, and afterwards some vegetable tonic be required.

Abscess.—Abscesses may form in all parts of the body, and at all times; but those which are peculiar to hot climates occur during the convalescence from yellow fever, and fevers of a typhoid character in general.

These mostly happen in the muscular, and only occasionally in the cellular tissue, and are caused by the immense amount of repair which nature requires to restore the dilapidated organs.

As soon as fluctuation can be made out, they should be opened by a large incision; emollient poultices should then be applied, followed, as soon as suppuration ceases, by simple dressings, while the strength must be supported by tonics, etc.

Scrofulous Ulcers.—I doubt whether there is a country in the world in which more people suffer from scrofulous ulcers than the shores of the Magdalena River. Being found by far more frequently in the males, and occupying either the ankle-joint or the lower end of the tibia, therefore constantly exposed to view, they give the people a most disgusting aspect.

The class of people among which these ulcers are mostly found belong to the lowest order of society, viz., boatmen and field-hands.

Their earnings are very small, and their profligate dispositions induce them to spend on Sunday their entire weekly wages in liquor, which compels them to live the next week on raw plantains, or anything which chance throws in their way. Besides this, their constitutions are saturated with syphilis in all its forms, and although they may newly contract it or gonorrhœa, they are too indifferent to care anything about such trifles, and just let it run, until nature or accident stops them.

How soon in such people a small sore or pimple will be converted into a ghastly-looking ulcer, is easily imagined. It is but seldom that cases of this kind come under the hands of a physician; but when they do, they should be treated as any irritable ulcer.

The edges being mostly thick and elevated, they should be freely incised crosswise and lengthwise, the whole mass then touched with a strong solution of chloride of zinc, to destroy any semi-ulcerated tissue, and decompose the general putrid production.

Fomentations, with a decoction of poppy-heads, or emollient poultices, may now be applied, with an occasional repetition of cauterization, until the entire wound assumes a clean and healthy aspect. Dressings of simple cerate may then be applied, and the whole treated upon general principles; taking care, however, never to apply anything irritating, for soon afterwards the ulcer assumes its old indolent aspect again, and the whole process of cure must be commenced anew before

it can be brought to a termination. Of internal medicines, an occasional dose of calomel and jalap, so as to affect the system slightly, is all that is required. In cases attended with great debility, the strength of the patient must be supported by a nourishing diet and tonics.

This system of treatment has only failed twice in my hands, and in these cases I succeeded at length, by washing the sore three times a day with cold water, and then applying dry lint, made of very coarse linen.

Burns.—Burns, unless they be very extensive, do not frequently come to the notice of the physician. This is not owing to their not happening; on the contrary, the mothers of the lower classes frequently leave their babies for whole days alone, either asleep in a hammock, or, worse still, on the floor, from both of which places the little ones frequently find their way to the fire.

The most severe case of burn I have attended to was brought to me while making a temporary stay at a sugar plantation, for the purpose of attending to a typhoid fever patient. It was a little girl of eight months, which had rolled out of the hammock into the fire, while its mother was taking a dance at a wedding in the neighborhood. The burns extended over the entire scalp and the right half of the body.

While looking around for something that might be of use in such an emergency, oil, lime, cotton, lard, flour, etc., nothing was found. I then recollected that an American lady had once told me of a Dr. Warren in Boston, who used to employ a silk handkerchief, wrung out of brandy, for the purpose of drying old sores up. As brandy was on hand, I determined upon trying it here. I took one part of it, diluted with two parts of water, and applied rags wrung out of this to the previously emptied blisters. I left them plenty of the said mixture, with directions to keep the parts well wetted with it.

Very little constitutional irritation followed, and at the end of three days the rags came away, and the cuticle with them, a new one being already formed. In six days the little patient was crawling about again.

The most remarkable thing in this case was the entire absence of any of those ugly cicatrices, so common in burns.

In ordinary cases, the usual mixture of lime-water and olive oil, followed by a weak solution of nitrate of silver, is all that is required.

Pyæmia.—This disease, caused either by the absorption or production in the blood of pus, is by no means so dangerous in hot cli-

mates as it has been proved to be in colder latitudes. I have lately seen five cases of it, all well defined.

Of these, two were puerperal fever, or, as I call it, endo-metropéritonitis; the other three were caused by retention and suppuration of a part of the placenta; all five recovered.

First of all, in such cases, the strength must be supported by tonics and mineral acids; the alvine discharges produced, which are always productive of much good, even when amounting to a slight diarrhoea, and should never be interfered with, unless bloody stools are passed. Powdered charcoal may then be given in large doses in injections, and in 3j. doses by the mouth, together with antiseptic baths and frictions, creosote, etc.

The appetite and craving of patients for some particular articles is so strong in this disease, that I do not consider it advisable to disregard it entirely; on the contrary, considering it a special call of nature, I let mine partake in moderate quantities of everything which is not contra-indicated by the disease.

Circumcision.—This operation becomes sometimes necessary, on account of venereal ulcers underneath the prepuce, it being impossible to bring them to view on account of the phymosis, whether that be congenital or accidental.

To perform circumcision, I proceed in the following manner: The patient being slightly put under the influence of chloroform, I pull the prepuce forward as far as possible, and there, where I want to cut, take hold of it firmly between the blades of a forceps. Six fine needles, each with a waxed-thread attached, should then be passed through both thicknesses of the prepuce, at about two lines from the forceps towards the penis, and the prepuce then cut off by one sweep with the scalpel.

The wound immediately draws itself back upon the penis, converting thereby the six threads into twelve sutures, which may then be tied, and a cold water dressing applied to the whole.

Circumcision of children of Jewish parents is sometimes requested; it should be performed in the same manner, minus the administration of chloroform; and, on account of the small size of the prepuce, it may also be cut off by a pair of scissors, and the lining membrane slit up in four or five places, by the nail of the thumb.

Cancer.—This is another of the diseases which abound in tropical countries.

It sometimes occurs in the womb; although its most frequent seat is either in the testicle, face, tongue, or breast.

The tongue and face are also very liable to epithelioma, and the wings of the nose to lupus exedens, which is apt to run in whole families. In cases of true cancer and epithelioma, early recourse should be had to extirpation, as offering the only hope, if not of cure, at least of relief for a year or two; in lupus exedens the parts should be repeatedly canterized with a paste made of one part of chloride of zinc, and two parts of starch or flour, made into a paste with a few drops of distilled water.

Of internal remedies, I have seen great benefit derived from a long-continued course of Plummer's pill; although in broken-down constitutions I prefer arsenic with conium maculatum, or a solution of iodide of iron in wine.

External applications, if radical cure is out of the question, should be selected, for the separate qualities they may have of allaying pain and irritation, enabling thereby the patient to die in peace of mind and body.

Amputation.—The question of amputating a limb is but seldom raised in hot countries. The entire absence of high buildings, wagons, machinery, and steam-engines, makes fractures not only very seldom, but also, when they happen, exceedingly simple. Besides, if the patient get only plenty of nourishing food, the vis medicatrix nature is mostly so strong, as to repair damages of an incredible amount. Amputation should therefore never be proposed, unless it be imperatively demanded, by the part being either lacerated or mashed, as sometimes happens in sugar-mills, or by the occurrence of gangrene.

While living in Honda, New Grenada, I was requested to attend to a mule-driver, whose leg had just been broken. A piece of iron of over 300 pounds weight had fallen upon the ankle-joint, mashing the internal malleolus into atoms, fracturing the os calcis in three parts, and the lower ends of the tibia and fibula into innumerable small pieces, besides producing pretty severe laceration of the soft parts.

Now, in the North, many a surgeon would have amputated right off; I did not amputate; and at the end of three months I discharged my patient with an anchylosed joint, but fully able to go to work again.

Neuralgia.—Under this head, I have to mention a peculiar kind of neuralgia, occurring only in people who have worked for years in tobacco factories, besides being habitual smokers. In these, the body becomes so thoroughly saturated with nicotin, that occasional twitching of the muscles of the face occurs, which ultimately becomes an agonizing pain, making the patient scream in horror.

I found numerous instances of this disease in Santa Domingo, San Salvador, and Ambalema, all tobacco countries; they offer the additional interest, that all that class of medicines called antispasmodics and narcotics, not only have no curative effect over it; on the contrary, they most always aggravate the pain. The following formula is almost a specific against it:

R.—Sulphatis quinae, grs. viij.

Pulveris cinchonae,

Ferri carbonatis, aa., ʒj.

M.—Divide in 4 powders.

S.—One every 6 hours.

After the most urgent symptoms have been relieved, I give three times daily thirty drops of the tincture of tartrate of iron in about a table-spoonful of some generous wine. This, and a change of occupation, is sufficient to effect a cure in about six weeks.

Semi-rheumatic pains occur sometimes along the course of the sciatic nerve, and also in the lower jaw. It may be that they are produced by the same cause, although the same remedy does not influence it at all. I am in the habit of prescribing the following for it:

R.—Vini radice colchici, ʒj.

Tincturæ opii, ʒj.

Extracti aconiti, ʒj.

Iodid. potassii, ʒij.

M.

Of this I give thirty drops three or four times daily; and if the pain be superficial, I have the entire painful part slightly painted by it, repeating the application every morning and evening.

Tetanus.—Idiopathic acute tetanus is a truly terrible disease; it occurs suddenly in healthy subjects, without any cause or reason whatever. It frequently terminates fatally, leaving, however, hardly any pathological lesions behind, by which to account for its extreme violence and fatality.

In the treatment, it is necessary to diminish the centric irritation, depending on a congested state of the spinal membranes; to relieve the abnormal excitability of the nervous centres, and, towards the end, support the strength.

In cases of traumatic tetanus, all that can be done is removing the exciting cause, if that admits of removal.

While living in Venezuela I attended to a case of "*tetanus of the penis*," or a continued spasm of the erector muscles, lasting the enormous time of *twenty-eight days*.

In the beginning, the patient tried to relieve himself in "*the natural*

way;" after that, all the resources of the *Materia Medica* and ingenuity were exhausted, but with no effect at all.

Bleeding, blistering, scarifying, cauterization, poultices, cold water, emetics, purges, salivation, tonics, antispasmodics, narcotics—all were tried in vain. At that time the patient appeared ready to succumb, when it occurred to me to try the celebrated *similia similibus* principle, by giving strychnine. I made three grains of strychnine into nine pills, and gave one every hour. With the fourth pill a decided amelioration was experienced, and when the sixth had been taken for about a quarter of an hour, a sudden vibratory spasm shook the entire frame; it only lasted about three seconds, and at its end the disease had given way, as by charm.

The most singular features of this case were, that the spasm never extended to any other part of the body, and that in the twenty-eight days of duration of the disease the patient had something like 58 or 60 seminal emissions, which, together with a very deficient alimentation, brought him very near the grave; so near, indeed, that many an evening I considered it impossible for him to pass the night.

Amaurosis.—The most common variety of this disease is the inflammatory. It is mostly brought on by a sudden exposure to a draught of night-air, or sleeping on the wet ground, the body being heated by traveling, dancing, or any other violent exercise. Frequently it co-exists with a disposition to rheumatic or gouty pains.

In the beginning, when the flashes of light are frequent and strong, it will be necessary to apply, say, about half a dozen cups to the nape of the neck. An active cathartic may then be given until the bowels have been effectually cleaned. After that, one of the following powders may be given every night or morning, for about a fortnight:

R.—Flores sulphuris,
Potassæ bitartrat., aa., ʒj.
Resin. guajaci, ʒij.
M.—Divide in 8 powders.

If this does not prove sufficient, a mercurial alterative may be given in combination with ext. conium maculatum. Its action must be kept up for a considerable time, and should then be followed by scruple doses of iodide of potassium in colchicum wine.

Counter-irritation by blisters, seton, etc., may sometimes become necessary, although I have no faith in them.

A patient who has once had an attack of amaurosis, should wear all his lifetime woolen socks, whether it be summer or winter, for fear of a relapse, which is always more severe than the first attack.

Conjunctivitis.—Simple, or catarrhal inflammation of the conjunctiva, is a very common disease in hot countries. The most frequent cause of it is the immense heat of the day being followed by chilly and dewy nights, and an imprudent exposure to the latter.

In the acute state it hardly ever requires anything but a brisk emetic or purge; and for external application, first emollients, then an astringent. My favorite in such cases is:

R.—*Lapidis Divinæ*, grs. vj.—xij.

M. *Aquæ fontan.*, ℥ij.

As a general rule, I never trust the patient with eye-waters; they are sure always to apply it to the wrong place, and one application by the physician is as good, if not better, than half a dozen by unskilled hands.

The chronic form of conjunctivitis is exceedingly troublesome; you may scarify and cauterize as much as you please, the patient has but to walk a few squares in the sun to find himself as bad again as before.

The cause of this is, in the first place, the scrofulous habit of the people; and secondly, the peculiar granular degeneration of the membrane.

It is entirely useless to apply any other than soothing remedies, until, by means of tincture of bark, with sublimate, iodide of iron, etc., the constitution of the patient has been amended.

As soon as this has taken place, the granulations become whitish and flabby, and should then be excised with a pair of scissors.

For this operation, which habit soon teaches to perform with nicety, I employ those scissors in use for enlarging the cut in the cornea in the operation for extracting a cataract; and of all makers, give the preference to Charrière.

It takes several sittings before the lids can be effectually cleaned of their incumbrances, and it requires a good deal of patience, both from the physician and patient, to do it well; but in no other disease of the eye is the result so striking as in this, and therefore so well calculated to pay for the trouble it causes.

Purulent ophthalmia of new-born children, whether it be caused by vaginal discharges or by too early exposure to strong lights, is always apt to be very troublesome. It happens but seldom that the physician is called in time to save the eye, the destructive process having already produced more or less opacity of the cornea, or perhaps loss of the entire eye.

If any part of the cornea is still left transparent, deep scarifications into the swollen parts, leeches, blisters, and cauterization with the

solid nitrate of silver, with calomel and opium at bedtime, may still be tried.

The same course of treatment must be pursued in cases of gonorrhœal ophthalmia in adults.

As a general rule, all applications to the eye in natives should be made in double or triple the ordinary strength; for before they ever think of consulting a physician, they have tried the entire list of home remedies, such as brandy, common salt, vinegar, lime-juice, urine, etc.

Goitre.—This is a very common disease in pretty much all hot countries. As it attacks the females more frequently than the males, and the former are always more or less anxious about their appearance, a newly-arrived physician is apt to be frequently consulted on this subject.

In old cases, nothing is left but operation, which, besides being very doubtful, is kept in horror by the natives; in fact, whenever a patient troubles me too much about some disease, I only have to commence talking about cutting, and—off they are.

In slight cases, the gland may be painted over twice daily with a solution of iodine, four ounces of which should contain one ounce each of iodine and iodide of potassium, until the cuticle has been removed twelve or fifteen times.

The syrup, or some other form of iodide of iron, may be given internally. But internal medicines should not be continued too long, and should always be alternated with strong purges, lest the same might happen as to a patient of mine in Guatemala.

The iodine in this case acted so well that the tumor disappeared entirely, although the mammary glands were at the same time also entirely absorbed.

At the end of about a year, the goitre returned as bad as ever, but the breasts not; an example of the fact, that sometimes a cure is worse than the disease itself.

Gonorrhœa.—It should be borne in mind, that in all cold countries a gonorrhœa is very easily cured, while chancres are mostly very obstinate; but in tropical countries it is exactly the contrary, hence the necessity to stop a gonorrhœa as soon as possible. The peculiar modification which the body undergoes in hot climates, and the small amount of plastic material in the blood, seldom permit a gonorrhœa to commence with truly inflammatory symptoms, and only in exceptional cases is there so much constitutional irritation as to demand the administration of a truly antiphlogistic remedy. In such cases I usually prescribe:

R.—Magnes. sulphat., ℥ij.
 Ant. tart. et potass. grs. ij.
 Aquæ fontan., ℥viij.

M.

S.—One table-spoonful every two hours.

Under the effect of this the bowels are effectually cleaned, and any trace of irritative fever which may have been present disappears. The most prominent symptom now is the scalding on passing the urine, and against this I prescribe:

R.—Pulv. gum. acaciæ,
 Sacchar. albi, āā, 3j.
 Tinct. camphoræ, gtt. xxx.
 Aquæ lauro-cerasi, 3ij.
 Aquæ fontan., ℥viij.
 Syrup. simpl., 3j.

M.—One table-spoonful every hour.

This prescription has to be continued for three or four days, and as soon as the scalding has nearly ceased, the proper time has arrived for using injections.

I generally commence with the sulphate of zinc, in the following dose:

R.—Sulphatis Zinci, 3j.
 Aquæ Fontan., ℥xij.
 Tinct. Opii, gtt. xxx.

M.

S.—3-6 injections daily.

If the above quantity has been used, and the running still continues, double the amount of sulphate of zinc may be given, in the same quantity of water.

But among a people so thoroughly tainted with syphilis, almost every case of gonorrhœa has something of a specific nature. If, then, the second injection does not produce the desired effect, I take it for granted that the disease is syphilitic in its nature, and prescribe the following injection:

R.—Hydrargyri Bi-chlorati,
 Ammon. Muriat., āā, grs. vj.
 Aquæ Fontan., ℥vj.

M.

S.—1-3 injections daily.

The number of injections must be regulated according to the amount of pain they produce; still, no more than 3 should be given daily.

It may become necessary to increase the sublimate to 1½ or 2 grains per ounce; still, this is only required in a few exceptional cases, and should always be done with great caution.

I have never found a case of gonorrhœa to resist these remedies; although, in old and much-debilitated subjects, there sometimes remains

a very slight gleet discharge, which, however, soon gives way under the use of—

R.—Balsam. Copaibæ,
Tinct. Ferri Acetici, aa., ʒj.

M.—3 times daily, 30 drops.

This is the only form under which I employ the balsam copaibæ.

As soon as I commence with injections, I order my patients to take a cold bath every morning, and to wash the genitals with cold water several times daily.

There is nothing which retards the healing process so much as to starve the patient on slops, bread soups, etc.

As soon as the urine is voided with but little scalding, I allow my patients to eat moderately of whatever they like; even, if they are accustomed to it, they may take some light French wine, with water, at breakfast and dinner.

It hardly ever takes me longer than ten days to cure a case of gonorrhœa.

I have once made the trial of the heroic, or abortive treatment, as recommended by Ricord. As a consequence, my patient suffered fifteen days from a severe attack of cystitis; and one was very near giving me and the world generally the slip.

Gonorrhœa in the female should be treated in the same manner; keeping, however, in mind, that the mucous membrane of the vagina is much less sensitive than that of the urethra; consequently, injections of triple strength may be used with impunity.

(TO BE CONTINUED.)

On Varicose Veins and Ulcers, and their Treatment by the Tincture of the Chloride of Iron. By BERNARD KELLY, M.D., Physician to the New York Dispensary.

There are few diseases, perhaps, with which the physician or surgeon has to deal, which prove so intractable or rebellious to treatment, as varicose veins, and the indolent ulcers which so frequently attend them. So true is this remark, and so comparatively insignificant has been the fruit of their labors, that we find the most experienced and judicious practitioners abstain entirely from all medical and surgical interference, and consign their patients to absolute repose, as the only reliable alternative left them in their emergency. Others, with a little more faith, but generally with less success, resort to band-

aging, elastic stockings, adhesive straps, cauterization, the ligature, and finally, the injection of the perchloride of iron into the cavity of the diseased veins, with the view of coagulating the blood, and in this manner to obliterate the vessels, and force the circulating fluid to seek more *upright* and accommodating channels.

Now, let us for a moment dwell upon the respective merits of these various modes of treatment. Of all, perhaps, rest in the *horizontal* position is the most judicious and satisfactory. But, unfortunately, there are too many serious obstacles to its general application. In the first place, all patients cannot conveniently keep their beds or lounges, without material detriment to themselves, or compromising, in too many instances, the urgent support of helpless families; and, secondly, the benefit derived is in no wise commensurate with the valuable time sacrificed; for the cure, if we may so term it, is but temporary, a relapse taking place almost as soon as he quits the recumbent position. The cauterization, ligature, and injection of varicose veins by the perchloride of iron, are attended by many inconveniences, and not rarely by extreme danger to the patient. All that is gained, at best, is obliteration of the vessel operated on; but the neighboring veins, sustaining the *onus* of returning their own complement of blood, and that thrown upon them by the impervious condition of their *congener*, literally break down beneath the excessive task, speedily assume the varicose state, and thus virtually deprive the operations of all practical value. The danger to be apprehended is twofold—phlebitis and the introduction of air into the veins; either of which accidents may terminate fatally. Compression by flannel bandages, adhesive straps, and the elastic stocking are at least but palliative, and must be constantly worn by the patient, in order to guarantee any result bordering on success.

The ablation of the diseased vein, formerly so much in vogue, is no longer thought of, and is justly consigned to oblivion. The iodide of potassium has been recommended as a never-failing remedy in the treatment of varicose ulcers. No doubt it is often serviceable in combating the low grade of inflammation which frequently accompanies them; but to assert that it ultimately and effectually heals the sores, is, we think, going deeper in the chapter than actual experience would warrant. As far as we have seen its efficacy in this respect, (and our means of observation have been sufficiently ample, being engaged as physician in one of the largest and best frequented dispensaries in the country,) it has, to say the least, proved a complete failure. With respect to its power over ulcers of a syphilitic nature we fully accord.

And, indeed, if we take into consideration the pathological element of varicose veins, and the ulcers resulting therefrom, we shall instantly see the utter futility, not to say the absurdity, of the so-called alterative, or iodide of potassium treatment.

Varicosity very commonly supervenes in debilitated constitutions, and in subjects who are necessitated to maintain the standing position, daily, for many consecutive hours; hence its great frequency in blacksmiths, and others following kindred employments. The vessels, not receiving the requisite support from the alternate contraction and relaxation of the muscles, as they generally do in those who follow active, bustling avocations, become distended by the slowly-circulating blood, gradually acquire hypertrophy of their coats, and finally assume a zigzag disposition, as the only definitive means to enable them to carry on the circulation. Now, all this is truly provisional on the part of nature. The thickening of the coats of the vessels sustains for a time the burden of the semi-stagnant blood; the tortuous arrangement furnishes a rude substitute for the valvules, by which the venous circulation is expedited. Many physicians, inspecting merely the thickened coats of the vessels, cannot comprehend how the disease can be one of debility; for, say they, hypertrophy indicates increase of nutrition, and where this condition obtains there is always evidence of vitality and force. Now all this may be very logical, but it cannot stand for an instant the test of stubborn facts. We all know that when an organ, or any portion of the economy, has increased duty to perform, it undergoes hypertrophy to enable it to discharge the laborious function imposed upon it. This is precisely the case with the veins. Another proof of the truth of our theory is furnished by the fact, that it is almost universally the vessels of the most depending portion of the body which become varicose. First, in point of frequency, are the veins of the lower extremities, the internal and external saphena, and their tributary branches; next, the veins of the pelvis, comprising the hæmorrhoidal, vaginal, vesical, uterine, spermatic, etc. The superficial veins of the abdomen, thorax, and upper extremities, are very rarely the seat of varix, and then almost universally results from some serious obstruction to the circulation, whether centered in the liver or the heart. The fact of varicosity sometimes supervening upon pressure from morbid tumors, or a gravid uterus, is no argument at all against the position we maintain; for we see, daily, hundreds of cases where similar obstruction exists, and yet the vessels preserve their integrity, allowing merely the filtration of the serous portion of the blood across their coats into the surrounding cellular tissue. Indeed,

on the contrary, it seems to lend additional force to it; for as, in one class, the veins become dilated, tortuous, diseased, owing to their inherent weakness, and incapacity of supporting the weight thrown upon them; so, in the other, by their natural elasticity and strength, they struggle successfully against this *incubus*, and remain perfectly normal and intact amid the same unfavorable circumstances.

The pathological nature of a disease being once established, a rational treatment is very generally predicated. It occasionally happens, however, that we are entirely unable to render any permanent, or even temporary, benefit, in cases the morbid characters of which are most clearly manifested to us. This exception, fortunately, finds no application in the present instance. Here we have an affection showing itself very frequently in lymphatic and feeble constitutions; in persons disproportionably tall and attenuated, in whom it may be truly, as well as literally, said, the veins have *uphill work* to perform; or in subjects otherwise athletic and well formed, but compelled by circumstances to follow pursuits in which the standing position is constant and inevitable; and finally, in pregnant women, and individuals laboring under various species of enlarged tumors and heart disease; but in all we see that the equilibrium, which should necessarily exist between the elasticity of the venous coats on the one side, and the pressure of the circulation on the other, is materially impaired. Had the veins possessed the strength and elastic endurance of India-rubber tubes, so as to counterbalance any undue pressure that might be imposed upon them, we should scarcely ever encounter a case of varix. We should, then, endeavor to remove, as far as possible, all obstruction to the venous circulation, and administer such remedies internally, which, if they do not supply, to the full extent, the *desideratum* of caoutchouc tubes, will at least so fortify the vascular system throughout, as to render certain forms of the malady, of which we treat, comparatively rare and innocuous.

The treatment which we have found most satisfactory, the one, indeed, which has surpassed our most sanguine expectations, consists almost entirely in the internal exhibition of iron. We scarcely ever condemn our patients to absolute repose in the recumbent position; neither do we employ bandages or adhesive straps; much less do we think of the cauterization, ligature, and injection of the diseased vessels by the perchloride of iron. Thirty or forty drops of the *Tr. Ferri Muriat.* are given three or four times a day in a little water, or better still, in a solution of the sulphate of quinine. Both these substances form an excellent tonic mixture, and are no wise chemically incompatible. If

the bowels show a tendency to constipation, one or two pills of aloes and iron are taken at bedtime, which always secure one or two passages in the twenty-four hours. This *soluble condition* of the alimentary canal is of great importance, and should never be lost sight of in the therapeutic management of varicose veins and ulcers. A *feculent*, loaded state of the intestines predisposes, in many instances, to the production of varix, and never fails to aggravate it when it exists. One has only to witness the inexpressible relief and comfort afforded to such patients from free purgation to be fully convinced of its great utility. We should not by any means, however, recommend it as an infallible remedy in the treatment of varices; we merely resort to it as an auxiliary means, frequently not to be dispensed with. If the large venous trunks, only, are dilated and tortuous; if a *phlebectasis*, as Alibert has called it, simply exist, the capillaries and surrounding tissues not being involved as yet in the disease, the cold *douche* perseveringly employed, followed by dry frictions, renders the most signal services, and seems to lend additional efficacy to the chalybeate medication. No one will understand us to imply that varicose veins shall ever regain their original symmetry by the treatment proposed; no, this is impossible; but the disease, the diathesis, shall be so modified, that the occurrence of ulcers, œdema, and hæmorrhages shall be postponed to a very remote period, if not indefinitely. Under its influence, we see persons who have been afflicted for a long time with excruciating pains in the limbs, who could scarcely walk the shortest distance without fatigue, soon become relieved of all inconvenience and suffering, and even perform long journeys, on foot, without evincing any symptoms of debility or exhaustion. The vessels, in a word, become braced up by the stimulating properties of the drug; they acquire tone and elasticity; the capillary circulation is carried on energetically; and thus all tendency to passive congestion and circumscribed ulcerative action is prevented. If the patient labor, at the same time, under chronic disease of the heart with regurgitation, for example, the treatment, for very obvious reasons, is equally appropriate and efficacious. If the small venous twigs and capillaries show signs of inflammation, by pain, tumefaction, and redness of the parts, it will be necessary to rest the limb for a few days, administer saline cathartics, and apply acetate of lead lotions freely. After the inflammatory action has subsided, which it does very promptly by the means specified, the tincture of iron must be immediately given in the doses already indicated, and recourse had to the cold *douche* and gentle frictions. The patient, at this stage, may safely take short walks, which, contrary to the old

notions of treatment, expedite rather than retard the healing processes. Sometimes the local irritation manifests itself in the form of intolerable itching, accompanied by an eczematous eruption, which often drives the luckless sufferer to the very verge of desperation. We have frequently known persons in this state to apply red-hot irons so close to the parts as to produce actual vesication of them. The internal use of the chloride of iron seldom fails, in the majority of cases, to allay this uncomfortable sensation, no doubt by its stimulating action upon the languid, laboring capillaries. When it fails, as it occasionally does, to give sufficiently prompt relief, we recommend the patient to rub the part with a saturated tincture of capsicum, or in lieu of this, with the spirits of camphor. The comfort afforded by such applications can only be fully realized and appreciated by the unhappy victim himself.

But it is in the therapeutic management of varicose ulcers that the transcendent powers of iron stand forth conspicuously. If its action be only conservative in the case of the veins, (a very important rôle, it must be acknowledged,) in the latter it is highly recuperative. When the system has fully come under its influence; when the process of hæmatisis is performed vigorously, we see old, ill-conditioned ulcers surrounded by broad, livid margins, which seem to offer an impregnable barrier, as it were, to all efficacious assaults from medicine, soon become entirely changed in their character. Instead of discharging large quantities of a fœtid, gangrenous ichor, as they generally do before a trial of the treatment proposed, they now secrete a moderate amount of creamy, laudable pus. Active, healthy granulations spring up from the bottom and the previously elevated and indurated edges of the sores. The dusky, purple patches which fringe them are transformed into a bright vermilion hue, and speedily attain the color of the sound tissues. We have no faith, as already asserted, in topical applications of any kind, and consequently seldom employ them. The parts are simply kept clean with a little soap and water. It often happens, however, that patients have wonderful confidence in salves and washes, and never fail to importune the physician to prescribe these indispensable panaceas. Now, if *placebos* must be given, *volens colens*, it will be the duty of the practitioner to select those which from their nature, if incapable of effecting any positive good, will at least do no material injury. We have found by experience that certain conditions of the ulcers and contiguous structures are sensibly benefited by certain substances applied locally. If the sore be unusually flabby and indolent, and disposed to bleed, the tincture of myrrh

or Friar's balsam may be very advantageously sprinkled on three or four times a day. Either lotion gives at first considerable pain, but this soon subsides, and the patient becomes easily reconciled to it from the apparent benefit derived, as shown by the induced healthy appearance, and speedy cicatrization of the ulcer. The neighboring tissues are sometimes covered by a dry, scaly eruption; sometimes bedewed by a serous exhalation. In the former case, any of the official stimulating ointments may be employed. We generally prescribe, when solicited by the patient, (for all these accidents will eventually and inevitably yield to the internal use of iron,) the diluted citrine, or the white precipitate. In the latter, a salve composed of simple cerate and finely levigated prepared chalk, or calcined magnesia, will fulfill all the indications. After the ulcers have been perfectly healed, and the limbs restored to their pristine vigor, it will be proper to persevere in the steady use of the chloride for at least a month or two. These patients, like chlorotic or anæmic ones, are excessively prone to early relapses, and consequently should be treated long after all the symptoms of their malady have completely disappeared. By such precaution the vascular system in general, and the venous in particular, is so strengthened as to effectually resist all tendency to regression.

Case of Pott's Disease, with Remarks. By H. G. DAVIS, M.D., New York. *Oliver C. Sarnum -*

In May, 1856, was called to see a young man affected with Pott's disease of the middle dorsal vertebra. A year previously he had received an injury upon the lower portion of the spine, giving him some local trouble at the time. Six months after the injury a slight prominence of the dorsal vertebræ was perceived, attended with some pain and sensation of weakness in the superior portion of the trunk. When I first saw him, he had more the appearance of a person with very round shoulders, than of one with angular distortion of the spine. His limbs were so far paralyzed that he was easily thrown down by slight irregularities when walking. His bowels were costive, and his bladder was evacuated with some difficulty; otherwise his general health was good.

I advised the application of my apparatus for Pott's disease, and gave encouragement that the paralysis would be relieved by straightening the spine, which it is a part of the design of this apparatus to effect. The apparatus was applied, and worn some weeks, but much

to my disappointment without any relief to the paralysis, which, on the contrary, regularly increased until it became complete, both of motion and sensation, the actions of the bowels and bladder taking place unconsciously. As soon as it became evident that there was compression of the spinal cord, and that the straightening of the spine would not relieve it, a change was made in the treatment pursued. My views were overruled by the gentlemen in consultation. It was decided that it would be dangerous to the integrity of the cord for the compression to continue any length of time, therefore an effort must be made to produce absorption. For this purpose, iodine was applied externally by the side of the spinous processes, and calomel exhibited in small doses, repeated until the gums were affected, and then continued in sufficient quantities to maintain this amount of mercurial action. This was followed for three weeks, the patient being salivated for a greater portion of that time. At the end of this period there was no relief to the paralysis; the patient had become greatly emaciated; appetite gone; the vital energies very much reduced, so much so as to prevent a longer continuance of the calomel. It is but justice to myself to say, that at the consultation, in opposing this treatment, I not only stated that no good result could be anticipated from it, but positive injury rather, to the general health, and a diminution of the chances of life.

At this time all hopes of any good from this treatment being abandoned by the consulting physicians, the case was given up to me. The paralysis had then reached as high as the epigastric region, although not entire here. There was a sense of constriction about the chest, somewhat impeding respiration. This sensation was at times so severe as to excite feelings of anxiety that it might fix the muscles of respiration, and destroy life, as in tetanus. The muscles of the abdomen were very tense, and some positions of the body would give rise to tonic spasms of those muscles, and apparently of the diaphragm, aggravating the difficulty of respiration to such a degree, that an immediate change of position was necessary. The treatment was now changed to invigorating remedies, the object being to sustain the system, and put it in the best possible condition to withstand the disease and the debilitating effects of a long confinement.

A pill containing ext. strychn. nucis vom., gr. $\frac{3}{4}$, argent. nitrat. cryst., gr. $\frac{1}{4}$, was ordered, four to be taken in the twenty-four hours. The system responded in a remarkable manner to this medication; the appetite became equal to that of a young man with robust health and active out-door exercise; the food was well assimilated, as was evi-

denced by the increase of flesh. This healthy condition of the digestive system continued through his whole confinement, with the exception of an attack of typhus fever, which ran a period of seven days.

After some weeks the bowels became sensitive to the effects of the nitrate of silver, and the *tr. nucis. vom.* was substituted for it, and afterwards the *tr. rhus. venenata* was added to the *tr. nucis. vom.*

It may be thought by some that my object was to overcome the paralysis by the remedies used. Such, however, was not my design. The tincture and the extract of the *strychnos nux vomica* contain but a small proportion of the alkaloid strychnine, while there is in addition a bitter tonic that affects in a remarkable degree the nutritive system, increasing the appetite and powers of digestion.

During the confinement of this patient, bed-sores appeared upon both hips and upon the back. In the fall a swelling was perceived over the lower lumbar vertebræ, which continued to enlarge, and finally discharged at the bed-sore below. The sinus appeared to run in the direction of the lumbar vertebræ; several pieces of dead bone were discharged from it. He now began to recover very gradually both motion and sensation. The muscles affected by the paralysis continued subject to spasms, so much so as to slide him out of his chair, if not held by his hands. Apparatus was again applied to keep his figure good, and a system of training adopted to enable him to regain the use of his muscles. His figure is at the present time very good, he can walk long distances, but the left limb has not fully recovered from the paralysis of motion; there is reason to expect that this will eventually be restored.

The craving for animal food, so general with this class of patients, was present in a marked degree.

He would drink the clear fat that dripped from beef in roasting. The amount of fat animal food he would consume was very large.

This case is interesting from the extent of the disease, its effect upon the spinal cord in suspending its functions, and the length of time it remained useless, the tenacity with which the cord resisted the diseased action contiguous to it, and lastly, the encouragement it gives us to sustain the recuperative energies of the system by promoting digestion and assimilation. Our chief dependence in such cases must be upon food, and that well assimilated; wine stimulants, like tonic spirits, &c., may answer for the crisis of a fever, or for a temporary period, but when the disease is to run on for months, it is only by the assimilation of food that the patient can hold out to the end. It is utterly fallacious to expect the ulcerative process established in Pott's disease

to be stayed in its progress, unless the recuperative energies of the system are sufficient to counteract it, by establishing the opposite process, viz., the renewal of the parts, or so much of them as the condition of the parts will admit. There are no specifics in such diseases; Nature performs her own work, and it is only by removing all obstacles, and providing her with the raw material, that we best aid her in the operation.

The state of the system in this disease is not inaptly represented in the vegetable kingdom by a tree that has received but limited support. It puts forth leaves every year, and may make some wood, but when such a tree receives an injury, destroying a portion of its cuticle, the laws of nature, that act when those governing vital actions lose their power, will then gain the ascendancy, or in other words, decay will commence.

The surest mode of preventing this process, therefore, would be to invigorate the tree, and remove the causes that might interfere with the restoration of the lost parts.

The treatment of Pott's disease and morbus coxarius should be founded upon this principle: put the system in the best possible state, and remove all obstacles to the perfect restoration of the lost parts. In Pott's disease we throw the weight, by means of mechanical support, upon the transverse processes of the vertebræ, and keep their bodies at their natural distances from each other, thus removing all pressure, and allowing the whole space affected by the disease to be filled up with new material, thereby preventing the deformity which would otherwise take place. In morbus coxarius we separate the diseased head of the femur from the acetabulum, thus leaving the parts in a condition to recover so far as pressure might have interfered. By this means we also get, in both instances, passive motion without friction.

Glycerine, and its Applications to Surgery and Medicine. By M. DEMARQUAY.

(This memoir is the result of five years' close study. We find it of sufficient value to transfer a condensed translation to our columns. It contains material very valuable, considered either from a scientific or practical point of view.)

Glycerine was discovered in 1779, by Scheele, in the mother-waters, produced in the preparation of simple ointment. Chevreul gave it its present name, and showed that it was a constituent of fatty bodies, in

which it played the part of a base, being united to stearic, margaric, and oleic acids, and that every saponification had for its object the destruction of this combination, the alkaline metallic oxides employed taking the place of the glycerine, while the latter was set free, and appeared in the mother-waters.

In 1845 and '46, Yearsley, Wakely, and Turnbull, of England, employed it, with some success, in diseases of the auditory apparatus. Startin first used it in skin affections, Taylor in xerophthalmia, and Scott Alison in the treatment of certain diseases of the larynx and trachea. In 1851, a French physician, M. Dallas, living at Odessa, used it in the treatment of gangrenous and other wounds. In 1854, Cap, in a memoir on glycerine to the Academy of Medicine, narrated certain cases of the successful use of glycerine, drawn from the practice of Trousseau, Cazenave, Bazin, and Aran. In October, 1855, Demarquay was employed at the Hospital St. Louis, where a gangrenous epidemic was to be combated. He had employed, unsuccessfully, lemon-juice, nitric acid, and sesquioxide of iron, and finally had recourse to glycerine. The success exceeded all expectation. Glycerine was applied to all the wounds under his charge, and the happiest results were obtained. At the end of the month they were communicated, through letters addressed to the French Academies, to the world. Thus glycerine made its entrée into therapeutics.

I. Properties of Commercial Glycerine.—Great difference will be found in commercial glycerine, in consequence of impurities, or even difference in composition. One specimen is colorless, another of an amber shade; or another still, highly colored. One is almost inodorous—another is possessed of a very disagreeable odor of rancid butter. As to density, the variations are fully as great—the areometer showing a range from 25° to 30° . And, what is of still more importance, commercial glycerine presents difference of reaction with chemical tests. Most frequently it is acid, coloring litmus paper strongly red; sometimes alkaline, making syrup of violets green; and very rare is it met with nearly neutral. In general, these contradictory properties arise from the presence of foreign substances employed in the saponification, and these are, ordinarily, fat-acids in union with lime, sulphuric acid, and metallic salts. Their presence makes glycerine sometimes irritating and painful in its action.

Glycerine, when perfectly pure, may at times excite pain by its application to wounds or highly inflamed parts. The explanation is thus made: Such glycerine is too highly concentrated, and has, hence, great affinity for water, causing its removal from surfaces to which the arti-

cle is applied, and determining pain. This fact shows the necessity of not commencing with the employment of a very concentrated article, where the surface is very sensitive. Demarquay prefers that the glycerine should be 28° , absolutely neutral, and free from impurities.

Pure, officinal (French Pharmacopœia) glycerine is a colorless liquid, inodorous even after it has been rubbed on the hands, of an oleaginous consistence, and of a saccharine taste. It marks 28° of the areometer, and, at this point of concentration, contains about 12 per cent. of water. When anhydrous, it marks 31° of the areometer. It is absolutely neutral—free from action on litmus paper or syrup of violets. Any specimen, whether acid or alkaline, should be rejected. It is very hygrometric. Exposed to the air, it will absorb half its weight of water—hence the necessity for its preservation in well-stoppered bottles.

The presence of volatile fat-acids is recognizable in impure glycerine by the odor of rancid butter which they give it. If we add concentrated sulphuric acid, there will be produced immediately the odor of butyric ether. There should be no precipitate in glycerine with the use of oxalate of ammonia; if a precipitate forms under such circumstances, it indicates the presence of lime. A volume of glycerine should dissolve completely in a volume of alcohol acidulated with one per cent. of sulphuric acid, without giving rise to a deposit even after 12 hours. If a deposit is formed, it will be in proportion to the lime present.

To detect metallic bases, resort is had to sulphydrate of ammonia, which has no effect on pure glycerine, but which will throw down precipitates where metallic oxides are present. To detect sulphuric acid and the sulphates, the soluble salts of barium are employed.

Sometimes a syrup of sugar or honey is added by way of adulteration, since as much as 10 per cent. may be employed. This can be recognized by pouring in the liquid a drop or two of sulphuric acid; there will be formed a white granular deposit, which is never formed under similar circumstances in pure glycerine. When glucose has been used in the falsification, the article should be boiled in a tube with a fragment of caustic potassa, when a dark coloration will be immediately produced.

II. Modes of Preparation.—The glycerine resulting from the manufacture of soaps and stearic acid candles is very impure, as the fats employed are generally of the worst quality; and furthermore, it contains a notable quantity of lime.

Several methods have been proposed, by way of purification. Mons.

Cap commences his method by concentrating, through evaporation, a quantity of the mother liquid from soap factories or stearic acid factories, then determining the proportion of lime they contain by means of oxalic acid. He saturates the lime with a sufficient quantity of sulphuric acid. The precipitated sulphate of lime is separated on decanting the liquid, which is then brought to the boiling point, constant agitation being employed; the fat-acids volatilize, and the liquid gradually loses its color and unpleasant odor. During the concentration the liquid is passed several times through linen cloths, in order to separate new quantities of sulphate of lime, and the excess of acid is saturated by carbonate of lime. The evaporation is accompanied always with agitation of the mass, and until the warm liquid gives 28° of the areometer. On cooling, some sulphate of lime is deposited, and finally the liquid is decolorized, when cold, by using animal black.

The objection to this glycerine is, that it is rarely neutral, and it almost always retains either some lime or an excess of sulphuric acid.

Mons. Gustin operates on very fresh fatty bodies, which he saponifies with pure litharge in the presence of distilled water. The mother-waters, containing glycerine in solution, are filtered, and introduced into a Wolfe's apparatus, through which a current of sulphureted hydrogen is passed until all the lead is precipitated. The glycerine is, however, not perfectly freed from the base used in the saponification.

Wilson, in the manufacture of Price's candles, treats fatty bodies with steam heated up to 250°, and they are thus split up. It is only necessary to collect the glycerine, concentrate and decolorize. The product thus obtained is very superior to those just described, for no foreign substance is employed to produce saponification. This is, then, the best glycerine for internal use. When this is employed for medicinal purposes, it is always well to diminish its density by the addition of water.

III. *Glycerols*.—By this name medicaments are called in Pharmacy, into the composition of which glycerine enters. In some of them, glycerine plays the part simply of excipient, in others that of excitant, and that of adjuvant, its action making that of the medicament more energetic, with which it is associated. Glycerols are employed largely in the iatroleptic practice. Glycerine, occupying a middle position between water and oil, dissolves a host of medicaments, whose absorption it renders easy—a valuable property when the alimentary canal refuses a medicament, which must then be introduced through the skin. In addition to this advantage, it is soluble in water and

alcohol, and hence it can be removed readily from surfaces to which it is applied, while it neither becomes rancid, nor produces any hurtful action on the skin—effects which fatty bodies sometimes produce in cutaneous affections.

The number of glyceroles is necessarily large, since glycerine dissolves some metalloids, a host of salts, extracts, alkaloidal salts, and some of the alkaloids, tannin, the tannates. Its solvent property, according to Cap and Garot, is nearly equal to that of diluted alcohol.

IV. *Therapeutics.*—Glycerine unites a softening and penetrating action on the tissues. These properties are incontestable, and to a certain extent special, as we shall show. When applied to the skin, covered with its epidermis, it produces no other effect than a very persistent sensation of freshness. This arises from the affinity which glycerine has for water. It condenses, in fact, the aqueous vapor contained in the atmosphere, and instead of drying, it becomes more liquid, and preserves for a long time the surface to which it has been applied, moist—a valuable property, which facilitates the absorption of such remedies as may be administered by the skin.

When the derm is denuded, glycerine, instead of producing the sensation of freshness, develops, on the other hand, a slight burning, which radiates from the point of application, although it produces no unpleasant effect if the article is pure. This burning effect is explained by the affinity of glycerine for water, which is extracted at the expense of the liquids of the economy.

Applied to organic tissues, it penetrates them thoroughly, so as to make them transparent. It acts thus on the fibres of muscular and cellular tissues, and upon the amorphous substances of fleshy tumors. It thus brings out clearly the structure of certain tissues; and Robin availed himself of this action on the anatomical elements of fresh bone in his study of *osteoplasts*.

But it has an opposite action on other elements of our tissues, attacking, and sometimes dissolving them. It contracts blood-globules without deforming them, renders them thinner, gradually destroys their color, and finally dissolves them, if the contact has been sufficiently prolonged. It contracts pus-globules at first, renders them more resisting, and reduces their diameter about one-half; gradually decolorizes, and reduces them to a delicate, transparent outline. It modifies, also, the physical and other characters of epithelial cells.

It has a preservative action on organic matters. Several experiments, made in conjunction with Luton, have established this fact, which was first communicated to the Société de Biologie, January,

1856. Demarquay gives the following as his conclusions on this action of glycerine:

1. Organic substances plunged into glycerine can be preserved for an indefinite length of time, provided the immersion has been sufficiently prolonged. He has had in his possession mutton chops for at least three years, that had been soaked in glycerine, and they were as fresh as when taken from the butcher's stall. The form, color, volume, and original suppleness are preserved, and no odor is exhaled.

2. When injected into the tissues, it only preserves them for a short time from putrefaction. Its preservative power is of greater duration in winter, when a subject, injected with glycerine, can be preserved from six weeks to two months. Great advantage would result from the use of glycerine in the solutions employed in injecting subjects. These solutions most always act injuriously on the instruments, form upon the cut surfaces efflorescences, and change the physical characters of the tissues. Such effects are not produced by glycerine.

Let us now notice the action of glycerine when brought into contact with our tissues, or notice its effects in pathological conditions.

V. *Sores, Wounds, Hospital Gangrene, &c.*—Demarquay first employed glycerine in surgery, and, therefore, this portion of his report is of special interest to the young surgeon. Nothing is more simple than glycerine dressing. The linen should be soaked for some time in glycerine, so that it is thoroughly saturated. It is removed at the time of application, drained, and then spread over the wound, which it should cover entirely. If the glycerine be pure, the patient will experience no painful sensation at the contact; a slight burning will be felt, less disagreeable, however, than the cold produced by contact of cerate. Over the glycerine dressing the ordinary bandage can be employed. When the sore is deep and irregular, the dressing should be commenced by filling up the cavities with pledgets of charpie soaked in glycerine, and then covering all with the linen cloth soaked in glycerine. The principle is to have the *whole* bloody surface covered with the medication. All other things being equal, the glycerine dressing need not be changed as often as the ordinary dressing, and can be retained for a long time. It can be readily removed without dragging along with it, as is the case with the ordinary dressings, some of the pellicle of the cicatrix. During treatment with this dressing, the sore remains clean, and, however long the time before cicatrization, it does not require washing. Hence there is economy of the surgeon's time, and the disagreeable effects of wet bed-clothing are obviated, as well as the atony which constant washing produces. It prevents fleshy granulations

developing too rapidly, and thus does away with the use of caustic to suppress them. It moderates suppuration. Sores thus dressed present a very fine appearance, and are rose-red, indicating a proper state of excitement for reparation. Moreover, it is exceedingly rare to find, in the curative course of such sores, any accidents, such as erysipelas, purulent infection, hospital gangrenes, &c., which often occur with the cerate dressing.

The effect of glycerine dressing on hospital gangrene has been disputed, and it was doubted whether the cases cited by Demarquay were cases of that disease. But he says, it is difficult to say what the disease is, if not hospital gangrene, when the suppurating surface, becoming painful, is covered with a grayish, pultaceous mass, extending superficially and in depth, the suppuration changing into an ichorous and very foetid pus; fever set up, accompanied with general distressing phenomena. In such cases, scarcely has the dressing been applied when the patient experiences comfort, and the pain disappears. Not only does the glycerine prevent the extension of the putrefaction, but it determines the elimination of the mortified parts, cleanses the suppurating surface, which assumes a rosy color, furnishes a true pus, and loses its unpleasant odor. The rapidity with which it produces all these changes is remarkable.

For four years Demarquay has dressed, in hospital and private practice, all cases of *anthrax* with glycerine. After having made suitable incisions, he places in each of these some charpie soaked in glycerine, covering the whole with a poultice moistened with this substance. Other surgeons, Pertus, Chalut, and Bertet, (of Cercoux,) have followed this plan with perfect success.

On the battle-field glycerine dressings will prove specially useful, as they need to be renewed very rarely, and diminish suppuration. Besides, warlike projectiles produce contused wounds, with mortification of their edges, ordinarily very complicated, involving amputations, requiring much time to cicatrize, and suppurating abundantly. Under such circumstances, glycerine recommends itself by its prophylactic and curative powers, by its anti-putrefactive action, and by its property of moderating suppuration. Besides, it is easy to transport, and can be preserved indefinitely, not being liable to rancidity, as is the case with cerate.

Deep Abscesses, Fistulous Passages, &c.—Glycerine is employed to meet the following indications, sometimes singly present, and often collectively. It prevents superabundance of suppuration, cleanses secreting surfaces, modifies the bad qualities of pus, prevents the stag-

nation of liquids, and excites the pyrogenic membrane, so as to hasten the process of reparation. Frequently, concurrently with injections of glycerine, Demarquay employs compression, when the parts and the nature of the lesion admit of it. The simultaneous employment of these two means has produced very good results in sub-mammary abscess and deep abscesses of the axilla, with purulent suffusions under the pectoral muscles. After amputations and disarticulations, purulent collections are often found in the stump. These may be well treated with glycerine injections. When an abscess is connected with an injury of the bone, iodine should be combined with the glycerine. The latter being endowed with great penetrating properties, and being an excellent solvent of iodine, it carries this medicament with it through all the diseased tissues, molecule by molecule. Such injections may also be employed in suppurating syphilitic buboes.

Burns.—In a general way, glycerine acts favorably in the symptoms which follow burns, such as the pain, inflammatory reaction presiding over the elimination of the eschar, and the abundance of suppuration, which, after the removal of the mortified parts, is so often a cause of exhaustion and death. The pain is quieted by the glycerine, and often disappears entirely when it has penetrated the injured surface, since it substitutes a moisture that relaxes the part for the dryness, and a sensation of freshness for that of heat. In pathology, phenomena follow each other, and it has been remarked in burns that when the pain is persistent, in general the consecutive inflammatory reaction is very intense. Would we prevent an active inflammation when we *quiet* the primary pain with glycerine? We do not deny such influence, but it is explained better by turning attention to the power glycerine possesses of preserving a slight excitation of sores, while it dissipates such irritation when it is developed. The glycerine, by opposing an exuberance of fleshy granulations, procures a cicatrix more even and regular than that obtained through ordinary dressing.

Ulcers, Ulcerations, and Chancres.—Glycerine alone may insure a cure of certain ulcers, but it is mostly employed as a preparation for, or an adjuvant to, general medication, or simply as a palliative. In ulcers springing from local vice, glycerine is used as a preparatory means to another treatment—compression by the aid of agglutinating bandages. The latter treatment succeeds best when it is applied to an ulcer restored to its simplest form. But the bearers of ulcers generally belong to the indigent class, or have laborious occupations, and have only recourse to the surgeon when the complications oblige them to cease work. These complications are: inflammation of the ulcer,

gangrene of some of its points, exuberance of fungosities on its surface, eczematous eruptions, and the development of callosities on its edges. Glycerine dressings cause these accidents to disappear, and then the application of bandages insures a prompt cure.

In cases of atonic, scorbutic, scrofulous, and syphilitic ulcers, the local action of glycerine wonderfully aids internal medication, by stimulating the sore, and keeping it in a condition favorable to cicatrization.

In cases of cancerous ulcers, it is a palliative, possessed of useful properties. Where there is much pain, it is well to associate laudanum, or watery extract of opium, with the glycerine.

An ulcerative inflammation may seize a sore. This assumes, then, a violet-red color, becomes painful, and furnishes an abundance of unhealthy pus. There is soon developed another sore on the first, which enlarges superficially and vertically by destruction of tissues. Such an ulcerative action may be seen often on the surface of a blistered skin in young children, becoming an unfortunate complication. Glycerine will arrest the process of disorganization, subdue the pain, determine the formation of granulations that will furnish healthy pus, and bring about the reparation of the parts destroyed, and the cicatrization of the sore.

Demarquay has employed glycerine in injections, (30 grammes to 250 of the liquid employed,) in cases of ulcerations of the lower part of the large intestine, with good effect. Dr. Van Holsbeek combats ulcerations of the margin of the anus constituting fissures, with glycerine holding tannin in solution. A pledget of lint, moistened with glycerine solution of tannin, is introduced carefully, morning and evening. He relates a case of cure in five days, under this treatment. The use of glycerine in chancres insures the cleansing of the ulcerated surface, and resolution of the induration of an infectious chancre.

Fissures—Chilblains.—In such cases the glycerine is the vehicle for the administration of other substances. Stratin devised the two following formulæ for excoriations, cracks in the breast, lips, hands, &c.:

R.—Gum. tragacanth. pur.,	parts,	8 to 15
Aquæ calcis,	"	120
Glycerine, purific.,	"	30
Aquæ ros. distillat.,	"	100

This forms a soft, gelatinous compound, to be employed as an ointment or embrocation.

R.—Sodæ bibor.,	parts,	2 to 4
Glycerine,	"	15
Aquæ ros.,	"	125

This forms a lotion.

Dr. Brinton has employed successfully, in cracks of the tongue, the following:

R.—Sodæ bibor.,	parts, 2½
Glycerine,	" 30
Aquæ,	" 120

Diseases of the Skin.—After what has been said of the properties of glycerine, if we except some febrile cutaneous affections, there can be no cutaneous affection in which it is not more or less useful. It may change the vitality, as in eczema, relieve a painful tension of the skin, as in erysipelas, the dryness of the epidermis in pityriasis and ichthyosis; oppose the thickening and splitting of tissues in lichen, psoriasis inveterata; quiet the itching, sometimes terrible, of pruriginous affections; prevent the formation of crusts; act favorably on the ulcerations of pemphigus and rupia; diminish the abundance of profuse sweatings, and destroy their unpleasant odor.

Anciaux recommends the following in erysipelas:

R.—Pulv. alum.,	grammes, xxx.
Precip. alb.,	" i.
Glycerine,	" C.

Shake in a flask until it assumes a creamy consistency.

E. Vidal employs the following glycerole in herpes præputialis:

R.—Glycerine,	40 grammes.
Tannin,	1 "

This has proved very successful. In one case, the disease disappeared in two days, having resisted, for six months, applications of various kinds, mercurial and others.

Mons. Bourguignon has devised a most elegant prescription for *scabies*, using glycerine as the menstruum, and effecting a cure after a single friction:

R.—Vitell. ov.,	2.	
Tinct. Lavand.,	}	ää., 5 grammes.
" Limonis,		
" Menthae,		
" Cheiranth,		
" Canella,	}	ää., 8 "
" Tragacanthæ,		
" Pulv. sulphur,		2 "
" "		100 "
" Glycerine,		200 "

Mix the essences thoroughly with the yolks of the eggs, then add the tragacanth; let the mucilage be perfectly formed, and then add, by small quantities, the glycerine and the sulphur.

A cheaper form is found in the following preparation:

R.—Tragacanthæ,	gramme	1
Potassæ subcarb.,	"	50
Pulv. Sulphur,	"	100
Glycerine,	"	200
Tinct. Lavand.,	} ää.,	1
" Limon.,		
" Menthæ,		
" Cheiranth,		
" Canella,	}	
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Make a mucilage of the tragacanth with 30 grammes of glycerine; add the carbonate of potassa; mix until the solution is perfect, then add the sulphur and glycerine in small quantities, and the aromatics.

In certain forms of lichen, Chaussit recommends a glycerole of aloes, which may be prepared by evaporating the tincture of aloes, and mixing the solid residuum left with glycerine.

In Vienna, lupus, goitre, scrofulous ulcers, constitutional syphilitic ulcers, &c., are treated by the following:

R.—Iodide of potassium, one part.
Glycerine, two parts.

These to be poured on Iodine, one part.

Glycerine has been employed, as is known, by Wakely in diseases of the external ear, and by Taylor in xerophthalmia, in ulcerous stomatitis, and in angina granulosa. In vaginitis, Demarquay has succeeded by using tampons soaked with the following:

R.—Glycerine, 100 grammes.
Tannin, 10 to 20 "

The tannin is completely dissolved by the glycerine, and the result is a solution of a beautiful brown color, bordering upon a yellow, transparent, readily taken up by a tampon of charpie or cotton, and, after application, not running out, even in the erect position.

The preceding has been condensed from Demarquay's Memoir, and want of space prevents us from transferring the whole to our pages. Enough, however, has been presented to satisfy our readers that glycerine is likely to be of immense aid to surgery in all its departments. Medically, hitherto, it has been employed with no special effect, except in dysentery, where happy results were attained by giving two spoonsful per hour, and employing injections containing 30 grammes to 150 of the liquid employed.—*Gazette Méd. de Paris*, No. 25, 26, and 27.

L. H. S.

Monthly Summary of Cotemporary Medical Journalism. By O. C. GIBBS, M.D., Frewsburg, N. Y.

Foreign Body in the Air-passages, Presenting some Peculiarities in its Sequence.—In the *N. A. Medico-Chirurgical Review*, for September, Dr. E. J. Fountain, of Davenport, Iowa, reports an interesting case of foreign substance lodged in the right bronchial tube, which resulted in abscess, or gangrene of the lung, which perforated the diaphragm and discharged its fœtid contents into the colon. The patient was a lad of ten years. The foreign body was the round head of a thigh-bone of a chicken. A diffused tumor made its appearance over the lower border of the ribs, accompanied with great tenderness and pain, about the 40th day after the accident. About fifteen days later, fœtid pus, in frequent evacuations, began to pass the bowels, to the great relief of the patient. The tumefaction passed away, but the cough still remained troublesome. About a month after the rupture of the abscess, the patient coughed up the bone, and from this point recovery was rapid. The case is here referred to because, so far as we know, it is *unique*. It also presents at least one point of practical interest: it was, by one or more of the physicians who saw it, considered to be a case of hepatic abscess. As low as was the foreign body, its removal could only be safely trusted to the efforts of nature, while the consequent symptoms were treated upon general principles and in accordance with an enlightened common sense.

Protrusion of the Stomach into the Cavity of the Chest.—In the same number of the journal above referred to, Dr. C. H. Spilman, of Harrodsburg, Ky., reports a case quite as *unique* as the one just quoted. "John Bull, a free man of color, on the night of the 22d of May, 1857, was stabbed in the left side; the knife entering between the seventh and eighth ribs into the cavity of the chest, passing into the abdomen, and making an incision in the diaphragm of about two and a half inches in length." The patient survived ten days: "every effort to procure an action from the bowels proved unavailing. The stomach received food, water, and medicine, but seemed only a passive receptacle; and nothing passing beyond, and being kept in a constant state of repletion, the regurgitation seemed simply an overflow of that organ."

The stomach was found, after death, in the cavity of the chest. It is probable that during some of the early efforts of severe vomiting the stomach passed through the cut in the diaphragm.

Dr. Dickson, in his *Elements of Medicine*, says it is a melancholy consolation to reflect, that the outlets from life are so numerous that we may reach the grave by a shorter and more pleasing cut than through

driveling dotage! Migration of the stomach into the cavity of the chest, we believe, is an addition to the usually recognized outlets.

Obstinate Intermittents cured with Arsenic.—In the Sept. number of the *Lancet and Observer*, Dr. L. D. Sheets, of Liberty, Indiana, makes favorable mention of Fowler's solution, in effecting a permanent cure of intermittent fever. He says, "My mode of treatment is to arrest the disease with quinine, and then to administer the arsenic in about twelve-drop doses, three times a day, until it begins to produce its specific effects upon the system, which are usually first manifested by swelling of the eyelids."

This is by no means new treatment, and we have no doubt of its efficacy. We have made reference to Dr. Sheets' article, for the purpose of affording us an opportunity of giving expression to our own experience. We have had a reasonable opportunity to observe obstinate intermittents, and, what may seem surprising, we never saw a case refuse to be cured, nor to stay cured for the season. We always trusted to a solution of quinine in tartaric acid and water, with the addition of laudanum. We have never exceeded ten grains of quinine at one dose, and have never repeated that the same day. With the addition of its own weight of tartaric acid, quinine is readily soluble in water, and we are of the opinion that the resulting *tartrate* is more efficient than the *sulphate*.

Our plan has been, if there is no hurry, to give first a cathartic containing calomel; after the operation of which, and three hours before the expected paroxysm, we would administer from five to ten grains of quinine in solution, as above, with laudanum equivalent to from two to four grains of opium, and send the patient to bed. This, in our hands, has never failed to arrest the paroxysm; and the same, or even a diminished dose, every morning, for a week, and then once a week during the malarial season, has maintained a perfect cure. In protracted cases, where functional or organic derangements have resulted, of course other treatment, adapted to each individual case, has been instituted. In our judgment, relapses would be very infrequent if treatment were continued sufficiently long.

Prof. Austin Flint's Remarks on Typhoid Fever.—In the *New York Monthly Review and Buffalo Medical Journal*, Prof. Austin Flint reports nine cases of typhoid fever, occurring in the Charity Hospital of New Orleans, during his service there last winter. This disease was found to present the same symptomatic phenomena as at the North. He says, "The indications for treatment are the same at New Orleans as elsewhere. The treatment pursued in the cases

reported was simple and uniform, but certainly not devoid of efficiency. In all the cases, save one, it consisted, in addition to opium or the sulphate of morphia, administered by the mouth or rectum in doses sufficient to keep the diarrhoea in check, of sustaining measures; in other words, of brandy and concentrated nourishment. These measures were pressed in proportion to the evidence afforded by the symptoms of the extent to which the vital powers were compromised by the disease."

"The importance of these measures in the treatment of typhoid fever is no novelty in English and American medical practice; but it is not fully appreciated by the majority of practitioners. That the pulse falls and is prevented from rising in frequency, in some cases, by the administration of from one to two ounces of brandy hourly; and that the free use of spirits is not only consistent with, but may be rendered still more important by pneumonia, or some other inflammatory complication, is an innovation in therapeutics so much at variance with traditionary opinions, as not to be readily adopted without the evidence of personal observation." Of the nine cases reported, but one proved fatal. We believe that the treatment of typhoid fever, as taught in most authoritative works, is destined to very great improvement. Early support is of the first importance. Practitioners have been far too afraid of opiates, which we consider second only to support. In typhoid conditions, we have certainly seen the pulse reduced as promptly under the use of quinine as under veratrum viride, and we consider the former far the most appropriate remedy.

An Inquiry into the Character of Green and Melanal Discharges from the Bowels.—In the September issue of the *N. A. Medico-Chirurgical Review*, S. G. Armor, M.D., has a very interesting article under the above heading. From the days of Chomel to those of the late Dr. Golding Bird, nearly all authorities taught that green stools were an evidence of increased or perverted hepatic secretion. Calomel has been administered, and the resulting green evacuations from the bowels, it has been supposed, were the result of the stimulating action of this agent upon the liver, thereby increasing its biliary secretions. Dr. Armor takes issue upon these points, (a few others have previously done the same,) and attempts to prove that both ideas are contrary to facts. It is affirmed, "First, that biliary substances proper disappear in their passage through the intestines; second, that the characteristic color of the faecal dejections depends not upon the chief constituents of bile, but upon its coloring matter, the contents of the

bowels becoming stained by its presence, just as the tissues and fluids of the body become colored in jaundice."

It is claimed that if bile be present in green stools, it is so in diminished rather than in increased quantities. "From long and close observation, and careful analysis, Dr. Golding Bird arrived at the conclusion that green discharges have at least no *direct* connection with morbid biliary secretion, but that they are occasioned by a *morbid exudation from the intestinal mucous membrane.*" This exudation is dependent upon two conditions: "First, arrest of hepatic secretion, growing out of congestion, (of the portal venous system;) second, *excessive acid fermentation of the fecal contents, resulting from the absence of bile*, as demonstrated by the experiments of Bidder, Schmidt, and others."

That green stools follow the administration of calomel cannot be denied, nor that they are quite peculiar to the administration of this drug; but it does not necessarily follow as a logical sequence, that such discharges are evidence of quickened biliary secretion. "Hermann asserts that powdered calomel, when triturated with yellowish-brown excrements, causes them to assume a greenish color." Dr. Armor says, "The green stools, *which follow the administration of calomel*, depend upon the presence of the sulphide of mercury. The analyses of Dr. Golding Bird, Simon, and others, show but a *trace of bile* in such discharges."

It is claimed that "the characteristic color of the fecal dejections depends upon the presence of the *coloring matter* of the bile, and not upon the presence of bile proper."

There are some other points discussed, and facts enunciated in the paper before us, but these are the most important. These opinions, if subsequent observations shall prove them correct, will necessarily revolutionize many of our old opinions, and compel us to restudy the action of calomel in the system.

We hail with pleasure any observations upon this obscure subject. There are some practices we never could reconcile with the old opinions. If green stools were the result of excess of bile, why should calomel, which was supposed to increase the flow, be advised in the diarrhoea of children, accompanied with such discharges? If calomel is a stimulant to the liver, why should it be depended upon in acute and chronic hepatitis? The science of medicine needs all the talent that it can command to unravel its mysteries.

Treatment of Vomiting in Pregnancy.—In the *Boston Medical and Surgical Journal*, for Sept. 1st, Dr. J. H. Warren, of Neponset, has

an article upon the treatment of nausea and vomiting in pregnancy, in which he speaks highly of the following application to the os uteri:

R.—Tinct. benzoin., ʒij.

Chloric. ether., ʒj.

Acet. morphiæ, grs. ij.

M.

"It should be painted upon the os and cervix, once in three or four days; and may be continued throughout the whole period of pregnancy, without any unpleasant effects."

It is only in severe and protracted cases that such treatment would be submitted to. We have no doubt of the propriety of local treatment to the os uteri in such cases. We have been in the habit of ordering vaginal injections of a weak solution of sulphate of zinc in a decoction of poppies, or some mucilaginous liquid, and the insertion of a pill of solid opium into the rectum once a day, or even oftener. We believe that the use of opium, per rectum, is not sufficiently put in requisition, nor its benefits appreciated. In regard to medicines administered by the mouth, we have derived more benefit from a solution of creasote in chloroform, and administered each in appropriate doses, than from anything else.

Treatment of Mammary Abscess.—In the same number of the *Boston Medical and Surgical Journal*, as reported in the extracts from the records of the Boston Society for Medical Observation, "Dr. Buckingham thought an abscess from lactation unnecessary. Nineteen out of twenty, he said, are the result of meddlesome treatment. He strongly objected to the usual custom of nurses, of beginning to rub the breast, or to apply the breast-pump, as soon as any pain is felt in the breast. The breast should be let entirely alone, and the child should be applied only to the well side: its nursing will cause milk enough to run from the affected side to relieve it. If both breasts are affected, the same plan should still be followed, and the child should not nurse either of them. They will swell, and grow painful, for from twenty-four to thirty-six hours, when a flow of milk will take place, and the trouble be relieved."

Other physicians speak highly of the same treatment. To us the advocacy of this plan is new; though we have long been convinced that the rubbing, squeezing, and breast-pumping only add to the irritation and pain. We have more confidence than Dr. Buckingham in the utility of treatment. We believe that the local application of belladonna, with the internal use of saline cathartics and iodide of potassium, if used early, will abort at least four out of five cases.

Spontaneous Expulsion of a Fibrous Polypus.—Dr. H. K. Oliver

reports, in the *Boston Medical and Surgical Journal*, a case of polypus of the uterus in a patient aged about thirty-five years, and unmarried, that was spontaneously expelled. Previous to its expulsion, the abdominal tumor appeared of the size of a uterus gravid at from six to seven months. The tumor was expelled after several days of uterine contractions, not unlike regular labor-pains, and quite as tedious. The product of the accouchement was quite satisfactory to the patient under the circumstances. Though somewhat decomposed, the tumor weighed, after removal, two and three-fourth pounds. The patient died a few days later, of peritonitis. We think, had the *écraseur* been used instead of the double ligature, it is possible that the peritonitis would not have supervened. Dr. Copland mentions a case that came under his observation, where two fibrous polypi were expelled by uterine contractions, the aggregate weight of which was about five pounds.

Appendix Cæci discharged per Rectum.—In the above-mentioned journal, for September 15th, a case is reported by Dr. Jackson, in which the appendix cæci was discharged from the bowels, several days after the patient had recovered from what seemed to be an intussusception, or at least an obstinate obstruction. The patient had been bled; his bowels repeatedly blistered; various cathartics given, and repeated; copious enematas administered; also, tobacco had been given per rectum. Five days the patient was subject to this treatment, when fecal evacuations began to pass. Five days later he was discharged, and about four days after this the appendix cæci was discharged. The patient recovered, and ever since, a period of three years, has been perfectly well. The case is probably *unique*, and presents some points of interest, which will readily suggest themselves to the reader.

Veratrum Viride in Chorea.—In the *Southern Medical and Surgical Journal*, for September, Dr. Baker, of Alabama, has a well-written article upon the above subject. The article is somewhat elaborate, but we will try to give, in a few words, the main results. In one very bad case of chorea, in which all the usual remedies had been used for eleven days without benefit, Dr. Baker commenced the use of *veratrum viride*, and says, "As she was gradually brought under its influence, the turmoil began to cease; the face, which had been worked by its muscles into the most ludicrous and horrible distortion, became placid and intelligent, the head had ceased its everlasting jerking, the extremities lay still, the body left off writhing, and the patient quietly passed into a peaceful and profound slumber. This sleep was deep and

long, as it was the first, with few and slight exceptions, that she had had in nearly two weeks; and the quiet that the muscles now received was all that had occurred, save during those few and short slumbers." "The veratrum was continued for several days, the convulsive movements ceased altogether, the muscles became completely obedient to the will, and the lady returned to perfect health and blooming beauty, under a judicious and properly regulated tonic course of treatment." Other and similar cases are reported. Dr. Baker thinks the remedy is equally efficacious in *eclampsia* in children. He says: "Indeed, I feel perfectly assured that it is a physical impossibility for convulsions to continue, after the system has been fully impressed by the remedy. My experience is, that in these cases, the medicine is tolerated in much larger doses than under ordinary circumstances." We have been of the opinion that the virtues of the *veratrum viride* were greatly overrated; we sincerely hope, however, that subsequent experience may confirm Dr. Baker's most sanguine expectations. We are confident that, in many instances, the benefits following the use of the *veratrum* have been due more to its adjuncts than to that medicine itself. Thus, Dr. Baker thinks the *veratrum* is appropriate to cases of *typhoid pneumonia*, because, as he says, "I have now in my mind such a case, wherein the administration of five drops of *veratrum*, combined with five grains of *quinine*, (the italics are ours,) every three hours, wrought, in the space of twelve hours, a change that seemed almost a miracle." We have in our own mind several cases, where the improvement was probably not less decided, from the same dose of *quinine* administered conjointly with brandy.

Treatment of Placenta Prævia.—In the same number of the *Southern Medical and Surgical Journal*, Dr. W. A. Mathews, of Fort Valley, Ga., has an article on the treatment of *Placenta Prævia*. He advises *ergot* and the tampon, when the hæmorrhage is profuse. Entire detachment of the placenta, or delivery by turning, as advised by some, are not always, if even often, the best procedures. *Ergot* and the cold douche, to secure firm uterine contractions, rupture of the membranes, that the cavity of the uterus may be diminished, and the tampon, if necessary, are the more appropriate remedial means.

Diphtheria.—In the *Virginia Medical Journal*, for September, Dr. Thomas Pollard, of Richmond, Va., has an article upon the above subject. He considers the disease asthenic in nature, and, in severe or malignant forms, contagious. He advises, for constitutional remedies, muriated tincture of iron, and the chlorate of potash, nourishing diet, and even wine in malignant cases. For local treatment, he pre-

fers a strong solution of nitrate of silver. In Dr. Pollard's views there is nothing new, but they are none the less interesting in consequence. Patients have been too often bled and mercurialized in diphtheria. In severe cases, quinine and Dover's powder, muriated tincture of iron, and chlorate of potash, should, in our opinion, form the staple of constitutional treatment.

Treatment of Fractured Lower Jaw.—In the *Savannah Journal of Medicine* for September, Prof. W. G. Bullock has an article on the treatment of fractures of the lower jaw-bone, in which a new apparatus is figured and described. "The instrument consists of a grooved plate of ivory or metal, accurately adjusted to the teeth, or alveola, if the patient has no teeth, (by first taking the impression in gutta percha, wax, or plaster of Paris,) to which grooved plate are welded projecting bars, or arms, curved so as to prevent pressure on the lower lip, with holes at their extremities, through which pass pieces of narrow tape, cord, thread, or twine, to attach it to a wooden, ivory, or metal bar or chin-piece under the jaw, serving the purpose of a sub-maxillary splint. This composes the entire apparatus, and is applied by fitting the grooved plate to the teeth, and tying the ends of the thread or tape previously passed through holes in the submaxillary splint." "It will be understood that no previous application of a bandage applied around the head and face to restrain muscular action is necessary, nor is any bandage or handkerchief tied over the vertex, to keep the splint in position, at all required. With this apparatus applied, the patient can go about his usual business, take his food, and talk, without fear of displacing the fractured portions of bone." That this is a decided improvement, so far as the comfort of the patient is concerned, we have no doubt; but, if we rightly understand the apparatus, a new one is required for each case, which will prove a decided objection to its use in country practice. Remote from the opportunities of constructing such appliances as the above, the manner of dressing described by ourselves, in the February number of the *Buffalo Medical Journal* for 1848, will be found to answer an effectual purpose.

Treatment of Typhoid Fever.—In the same number of the *Savannah Journal of Medicine*, just referred to, Prof. J. B. Read speaks highly of the syrup of the hypophosphites of iron, soda, lime, and potass in typhoid fever. He gave it in 20-drop doses every two hours, surely with very marked effect in one very bad case, in which all the usual means had failed to develop favorable symptoms.

Puerperal Convulsions.—In the *Medical and Surgical Reporter*, for September 3d, Dr. McGrath, of Pittsburg, reports a case of convul-

sions successfully treated by inhalation of chloroform, after two ineffectual bleedings. Dr. McGrath seems surprised at the result, and speaks of chloroform as though it were a new remedy in such cases, having been used only by Dr. Tracy, of Melbourne, Australia.

In this section, we believe, all cases of puerperal convulsions are trusted to chloroform, and we have not heard of a case of death from that disease in this locality for several years. In the last five years, our friend Dr. Strong, of Westfield, N. Y., has treated many cases with chloroform, and with uniform success. In ten years of practice we have not lost a case of puerperal convulsions, nor a case of convulsions of any kind since we commenced using chloroform as a remedy in such cases. In the last three years we have treated perhaps fifty cases of convulsions, *not puerperal*, with this remedy, both in children and adults, with the same uniform success. It is never necessary to carry the remedy to its full anæsthetic effect, but it is sometimes necessary to continue its slight action for some time. In hysterical convulsions we know of nothing that acts so admirably.

Death from Epistaxis.—In the *Medical and Surgical Reporter*, for September 10th, Dr. Triplett, of Virginia, reports a case of death from epistaxis, which we allude to for the purpose of criticising the treatment. He placed the patient in the recumbent posture, with head raised on several pillows. From 10 A. M. until evening, astringents, plugging the nares, &c., were resorted to, without effect. Dr. Triplett says, "I now concluded to let him alone for several hours, and notice what effect the lead would have." "The next morning, to my great astonishment, I found him propped up in bed, and gnawing at a piece of boiled ham; all hæmorrhage had ceased." The doctor complained of his obduracy in sitting up, and ordered him again to the recumbent posture. In a few minutes a stream of blood issued from the nares again, which continued until he died.

The recumbent posture, *with the head elevated*, is the worst possible position in such cases. The recumbency facilitates the flow of blood to the head, while the cramped position of the neck impedes the venous circulation, and the consequent return of blood to the heart; cerebral congestion is the result, and an increase of epistaxis. The erect position should be maintained. It is true in this position a patient will faint sooner, but that is all the better.

Mammoth Tumor.—In the *Cleveland Medical Gazette*, for August, our much respected preceptor, Prof. John Delamater, of Cleveland, Ohio, reports perhaps the largest tumor on record. The patient resided at Pennfield, Lorain County, Ohio, and was between thirty-five

and forty years of age. When she was six months advanced in her first pregnancy, she was kicked by a cow in the right iliac region, to which injury she referred all her troubles. She conceived four times after this, and was delivered without serious accident, though generally prematurely, and of still-born children. The patient had two tumors: one occupying and greatly distending the abdomen; the other, and smaller, occupying the right labium, and extending to the nates. The first tumor made its appearance in 1840, and the second in 1844. The patient died in 1854, having been confined to the bed for several of the last years of life. No post-mortem was allowed; but, in order to render the body more shapeable for burial, the smaller and posterior tumor was removed. It was found to be of a fatty nature, containing a cyst communicating with the larger tumor, and with the peritoneum. This tumor filled a common wash-tub, and the two were estimated to weigh 275 pounds, while the body would probably not weigh more than 90 pounds.

Pyrogoff's Operation.—In the last three issues of the *Cleveland Medical Gazette*, Prof. G. C. E. Weber, M.D., has an article on *Pyrogoff's Osteoplastic Prolongation of the bones of the leg, with exarticulation in the tibio-tarsal articulation*. Dr. Weber recommends the operation in suitable cases, and reports four cases either performed by himself, or under his immediate supervision. The Dr. seems surprised that no one has put the operation of the great Russian surgeon to the test in this country, or, at least, that no reports of such cases have appeared in American journals. The editor of the *Medical and Surgical Reporter* says, that Dr. Pancoast has performed the operation several times, and that reports of such operations have been published in the last-named journal. The operation is, doubtless, deserving of more attention than it has received, and the profession are indebted to Prof. Weber for the elaborate essay, of which we have not space for a synopsis.

Fistula in Ano, and its Relation to Phthisis.—In the *Semi-Monthly Medical News*, for September 1st, Lewis Rogers, M.D., of Louisville, has an able report upon the above subject. The opinions of several eminent physicians, both in this country and in Europe, are embodied in the report. We can make but brief quotations in illustration of the author's opinions: "Your committee inclines to the opinion that fistula in ano is, for the most part, salutary in its influence upon tuberculosis of the lungs." "It is rational to infer that tubercular fistulas, whilst they indicate a more profound vitiation of the system, exert, at the same time, a different influence from that of more benignant sinuses."

Dr. Rogers advises fistulas, occurring in connection with the tubercular diathesis, to be let alone. He says, "In persons strongly predisposed by inheritance to tuberculosis, and in those who are already the subjects of it, fistula in ano, of whatever variety, and whether viewed as a mere casual complication, or as holding some more intimate relation, should be touched with cautious hands."

The report does honor to the chairman of the committee, but we are not a convert to all the opinions expressed. We cannot look upon fistula in ano as curative in consumption. If it has any relation to pulmonary tuberculosis, it seems to us that relation must be one of *common origin*—that fistula in ano must originate in the depraved and cachectic condition of the body in which consumption has its origin. We should expect that a bad fistula would increase the constitutional impairment, and thus hasten the progress of tuberculosis. What philosophical reason is there for considering fistula in ano curative, more than the colliquative sweats and exhaustive diarrhœas that sometimes accompany the advanced stages of tubercular diseases? We know that philosophy must yield to facts, and, hence, await the facts.

Medical Inhalation in Consumption.—In the *Nashville Journal of Medicine and Surgery*, for September, J. N. Graham, M.D., of Chicago, has an article upon the above subject. He thinks well of inhalation, and reports several cases illustrative of benefit. He recommends Minthons's Inhaler. We give a formula or two, which he uses:

	" R.—Acidi hydrocyanici,	3ij.
	Vin. ipecac.,	
	Elix. pægoric,	aa., ʒss.
	Tr. conii,	ʒij.
M.	Aquæ rosæ,	ʒxij.

Inhale $\frac{1}{2}$ oz. three times a day."

	" R—Cyan. potassæ,	grs. viij.
	Ext. stramonii,	ʒijss.
	Tr. ipecac.,	ʒj.
	Tr. lobelia,	
	Tr. stramonis,	aa., ʒvj.
M.	Lac. assafoetida,	ʒiv.

Inhale a tea spoonful three times a day."

Iodine also is recommended in some cases, in connection with conium. It is our opinion that regular physicians have too much neglected inhalations. The suffering consumptives, at least, have confidence in them, and they have long been the stock in trade upon which quacks have flourished. If physicians would give inhalations that attention which their importance demands, we have no doubt that

many consumptives would be kept out of the hands of ignorant and unprincipled quacks. In all constitutional diseases, with a local determination or manifestation, we can imagine how local means may be of service; but how, by their agency alone, as quacks affirm, radical and permanent cures can be effected, we cannot so easily conjecture. Be the local medication what it may, whether inhalation or bronchial injection, as recommended by Dr. Green, of New York, in tubercular diseases, they should, in our humble opinion, be auxiliary to constitutional remedies. The tubercular diathesis, if eradicated at all, can only be so through constitutional means; while bronchial inflammations and tubercular excavations may be advantageously treated by local applications.

Muriated Tincture of Iron in Scarlatina.—In the August number of the *Oglethorpe Medical and Surgical Journal*, Prof. H. L. Byrd, of Savannah, has an article upon the above subject. Five years ago, Prof. Byrd published an article upon the same subject, in the *Charleston Medical Journal and Review*, in which he made the following enthusiastic remarks: "So much am I convinced of its value, that I would not willingly exchange it for all the other remedies which have heretofore been recommended in scarlet fever. I am not aware of the article having been noticed before." Prof. Byrd now supports his former opinions, and is more minute in regard to other treatment. He says: "The next step taken after the bowels have been properly evacuated is to reduce the force of the circulation, and this is effected by sponging the entire surface of the body with tepid water and vinegar, and the internal administration of tinct. verat. viride, and the chlorate of potass, the dose of each being regulated, of course, according to the age and strength of the patient." "As soon as the skin is soft, if the stomach is not irritable, the tincture of iron should be commenced with." To a child two years old he gives four drops, and increases two drops for each additional year, and gives in mucilage of gum-arabic. Nitrate of silver, and solutions of chlorides of soda and lime, are used in the throat. We have no doubts of the propriety of this treatment. Several years ago, and before we knew that any person else had used tonics in scarlet fever, we commenced with quinine and Dover's powder and chlorate of potass, at the very first, with nitrate of silver locally—with tannin added to the powders when the bowels were too loose, and rhubarb when too costive—and the results were so satisfactory that we have never since materially deviated from it.

Treatment of Spina Bifida.—In the *Chicago Medical Journal*, for

September, Prof. Brainard has an article upon spina bifida, and its treatment. It is well known to the profession that this affection has, by the most eminent surgeons, generally been considered incurable. Various means have, however, been proposed by different surgeons, and cures occasionally been effected. In 1847, Prof. Brainard reported a case of cure by iodine injections—the first in which this expedient had ever been put to the test. Ten cases have now been operated on by iodine injections; five by Prof. Brainard, two by Dr. Crawford, under Dr. Brainard's direction, one by Velpeau, and one by Nelaton. Cures have not resulted in all the cases, yet we believe the majority have been cured. Prof. Brainard lays down the following rules for operation:

- "1. Make the puncture in the sound skin at the *side* of the tumor.
2. Inject the solution of iodine and iodide of potassium, commencing with $\frac{1}{4}$ grain of the former to $\frac{3}{4}$ of the latter, and retain it by slight pressure.
3. Evacuate no more of the liquid than the quantity of injection about to be thrown in.
4. If convulsions supervene, the fluid may be drawn out, and its place filled with distilled water.
5. Lay the patient on the face; and if there be heat, apply evaporating lotions to the tumor and to the head.
6. When the tumor becomes flaccid, apply collodion or other means of contracting the skin. This should be continued for some months after the swelling has disappeared.
7. After the effect of an injection is past, repeat it as many times as may be necessary, and gradually increase the strength according to the effect produced."

Under the following circumstances, Prof. Brainard does not advise interference:

- "1. When the tumor is small, and the patient several years of age and in good health.
- "2. When the child is laboring under acute disease, whether this be of the head, of the spinal cord, convulsions, &c."

Nasal Polypus—New Treatment.—In the same number of the *Chicago Medical Journal*, just referred to, J. H. Reeder, M.D., of Lacon, Ill., reports two cases of nasal polypus cured with injections of muriated tincture of iron, slightly reduced. Of one case, he says: "I injected the nostril with tr. mur. ferri, diluted with water, and then forced a piece of moistened sponge into the nostril, and told my patient to return in a couple of days. The next morning she called, and

informed me that soon after she arose from her bed the whole mass had escaped from the nostril posteriorly, and had been thrown out on the floor, a semi-fluid, opaque mass."

The other, a very bad case, was cured in about a week. Should this treatment prove generally efficacious, it will be a valuable discovery, as polypi in other localities less accessible to removal will doubtless yield to its action equally well.

REVIEWS AND BIBLIOGRAPHY.

The Progress and the Spirit of Medical Science: An Anniversary Discourse delivered before the New York Academy of Medicine, November 25, 1858. By E. R. PEASLEE, A.M., M.D., Professor of Physiology and Pathology in the New York Medical College. Published by order of the Academy. New York: W. H. Tinson. 1859.

This address is neither rhetorically egotistical nor tediously historical, as might not unkindly be said of some of its predecessors. It is simply and eminently philosophical.

It is, in truth, a scholarly production, with manly thoughts conceived in no self-complacent spirit, but worthily and for a useful end.

Likening our profession to a noble vessel, it seems to us, a common sailor merely, as if some officer had come on deck, and measuring the angle of the stars, and looking at the time, the course, the speed of the ship and her track already mapped in history, had told us where we were, and in what direction lay our proper course.

To many sailing ignorantly with the ship, intelligence like this cannot fail to be of interest. Their efforts henceforth will be the heartier and the livelier, even though the darkness and the fog be round them, if they know and feel that they are rightly headed.

It is strange how much loose thought prevails on the subject of medical science, and how vaguely, and even incorrectly, in the minds of its professed followers, are defined the true and legitimate lines along which it advances. It was doubtless to meet and correct this great fault, as well as because it was preliminary to the main subject of this address, that the true distinction between art and science should be first drawn; next, what constituents are needed to make up any actual science set forth; and lastly, the position or character of medical science, as compared with other sciences, correctly stated.

Art is not science, nor is it based on science. With cunning hand and graceful step she marches on before, manipulating, changing, inventing, and all naturally, skillfully, or usefully, as she goes. Science, calm and clear-eyed, comes slowly after, moving on from point to point, sifting, assigning, ascertaining the very truth of facts, and possessing herself of the soul that animates them, dares even to predict their recurrence. The object of the first may be pleasure or utility; the object of the latter must be truth.

Are there not those in our profession who practice medicine as an art—perhaps a trade—who know nothing of it as a science?

What, then, constitutes a science? Facts which are facts, ideas which are ideas, that is, correct and distinct ones, and truths or principles that are general and well established—these are the elements which in any department of knowledge, when classified and arranged, make up in that department, a science. Strictly speaking, all sciences should be, as far as advanced, perfectly exact and positive; but, from the nature of their elements, they are only relatively so. According as these admit of being accurately weighed, measured, or numbered, in just so far do they become exact or positive. Medicine, therefore, except partially in the direction of Anatomy, cannot be classed, like Chemistry or Physics, as one of the exact sciences. Compared with these, it is, as a whole, a science of probability—the certainty being as to its degree, and the degree depending upon the quality of its established truths, facts, and ideas. Now, since there are but two scientific methods of obtaining truth—the inductive and the deductive—and since, in many minds, are somehow dimly associated with the first Newton's apple and the law of gravity, Harvey's finger tracing out the blood-current, and other brilliant discoveries; and with the second Thomas Aquinas and old Dun Scotus, and musty logic, smelling only of "words, words, words," it may be as well, for clearness' sake, to inquire what is really meant by these two methods.

Some imagine that reason operates differently, according as one method or the other is pursued. But it is not so. This faculty, indeed, cannot change the direction it must follow. The process it institutes in either method is the same, and in reality syllogistic in form. The peculiarity consists in the manner of obtaining the data on which it works. The inductive method leads in patiently, one by one, a multitude of reliable and comparable facts, and from the mass rises to the general law that governs them. The deductive method boldly starts with theories or propositions, and from ideas already in the mind, deduces an explanation of the facts considered. In the first,

the staple out of which truth is woven is facts; in the second, general propositions. Both methods are necessary for the completion of every science, and both need to have their conclusions verified: the one, by a repetition of the process upon a new series of facts; and the other, by the *experimentum crucis* of the facts themselves.

The path along which the inductive method passes is straight-lined and grooved, admitting only certain classes of particular facts to develop the conclusion. The deductive method, however, has far wider scope. It marches to its conclusions from ideas, theories, single facts even, or at least a number too small to warrant the use of its associate method.

Inasmuch, then, as the facts to be used in the inductive method must be real—must be comparable—must be sufficiently numerous, and the reasoning process instituted upon them logically executed, the mind that would use this method profitably or well must have that happy balance of the perceptive and the rational faculties that make the good observer and the good reasoner combined. How rare they are!

Some are good observers, but they cannot collate; some are unsafe comparers, as, for instance, adepts in one department passing upon orders of facts in which they are not equally versed. Some are skillful in the marshaling of particulars, but without the logical power to lead them to conclusions. The inductive mind is cautious and conservative—the deductive bold and progressive. The motto of the first might be, "*Lente et tutissime*;" of the second, "*Non progredi est regredi*." Children and most men are naturally inductive—poets, geniuses, and most women, are naturally deductive.

The same mental characteristics apply to nations. Of old, the Greeks were eminently a deductive people. The Romans were not so. Had Bacon preceded Cicero, they might have carried their eagles as far on the field of science as of war. But as it was, the Roman mind seemed rather materialistic than scientific. The following comparison, in this respect, of the three great efficient modern peoples, we extract entire. It is of exceeding interest, as helping to express the character of our own national mind:

"The English mind is intensely and almost exclusively inductive; and therefore slow, prudent, conservative and practical. The German mind is especially, but by no means exclusively, deductive; hence it is progressive, theoretical, and even transcendental, but less practical. The French mind is especially observant and adaptive—inductive or deductive, practical or theoretical, as may be required—versatile,

revolutionary, and highly æsthetic. If I may also add the traits of American mind, I should say it is far more deductive than inductive, but is still practical; though restless, inventive, and progressive. Compared with the preceding, it evidently operates under a "high pressure;" but it is capable both of observing and reasoning well, provided it can only *wait*."

There seems to be a prevailing disposition to exalt the inductive above the deductive method. So strong is the odor of this faith instilled into some minds in schoolboy days, perhaps, that even now conclusions, although verified, lose with them half their value, if they think them reached in any other way than by the inductive method. But Bacon never meant the method he proposed for the advancement of knowledge should entirely supplant the legitimate use of that instituted by his great prototype, Aristotle. He both admitted and recognized the value of the latter. Neither does the inductive, as so many suppose, exclude the rational method. Both are invaluable in their proper places, and each has its place.

This, then, is a grievous error, which, together with the common misconception of the spirit of the inductive method, both in regard to the acquisition of data and the reasoning process instituted upon them, as already hinted at, has in all probability greatly retarded the advance of science, and made many to become rather the blind worshipers of those who merely mould into scientific forms, clay-cold masses of facts, than those, who, by their creative genius, breathe into such masses the breath of a living principle.

Of itself, the deductive method was not so much to blame for the little fruit it bore its early cultivators. The real fault lay not in the method, but in its application. In the paucity of established facts, the ancients reasoned from ideas preconceived and independent of facts, and not from ideas based on actual facts. This necessity no longer exists. Indeed, with some sciences, the deductive is now the only method available for their advance. The inductive having temporarily exhausted itself, must wait for new materials to warrant further conclusions. Again, we also know that with sound premises and a reasoning process logically conducted, our conclusions must be sound. Starting, then, with ideas established upon real facts, careful, indeed, that they be not the figments of a theorizing brain, there is both in the power of the deductive method itself, and in the rewards it promises, full justification and high inducement for a more general return to its use. We see no reason why, mounted on these firm thought-bases,

modern mind should not catch earlier, broader, and brighter views of truth than ever before.

Applying now the philosophy we have been considering to our own science, medicine is found, in its various departments, dependent for its advance upon both the inductive and deductive methods. That so far as regards the science of *structure* or anatomy, the path it takes is mainly inductive; that so far as regards the science of *function*, which embraces physiology and pathology, the path is both inductive and deductive, and yet also teleological;* and finally, that so far as regards the science of *conservation*, which embraces hygiene and therapeutics, both in their medical and surgical aspects, the science of medicine proceeds mainly by the inductive method.

These, then, are the great cosmographic lines that must control henceforth, as they have heretofore, the real progress of our science. With their tabular statement closes the first division of this discourse.

We have shown somewhat the color of our appreciation of this preliminary labor, by the fullness of our analysis, and yet we do not think we overrate its value when we bespeak for it from every thoughtful reader thanks and the highest praise.

Is it not a pleasant thing in any inquiry, and especially in one which seeks the true foundations of the science we adore, to have some clear and honest mind precede our steps, and, divesting from the subject the tangled misconceptions that have overgrown it, make plain the very pillars of the shrine at which we worship?

We come now prepared to trace the past progress of our science—to comprehend its present position, and to discover the character of the spirit now breathing through it.

A very general survey recognizes in this progress three great epochs: 1st, the superstitious; 2d, the epoch of unsystematized learning; and, 3d, the epoch of systematized learning or actual science. Now, epochs in history are to a great extent conventional periods, and may be mul-

* By this method is meant the assumption of a final purpose for every part, and working out from structure or other circumstances the real function of such part. In other words, it is "the doctrine of final causes," originating with Aristotle. As if one should say the teleological or final purpose of moss, which in truth, loving not the sunlight, affects the polar side of trees, was to protect them from "the rude north wind's breath;" or that the final purpose of the cerumen of the ear was, by its unpleasant odor, to keep out noseless bugs from the external meatus. Bacon regarded this philosophy as sterile, as did Geoffrey St. Hilaire. If their judgment be not thought right, the illustrations given above will show at least how omniscient a caution is needed, to attain, by this method, correct conclusions.

tiplied or limited in number, according to the comprehensiveness of the view taken; but since so clear a thinker as Compté traces the development of all positive sciences by stages, somewhat similar to the divisions of the text, we rather like them, and think them simpler, or at least more natural, than those given by Renouard in his admirable *History of Medicine*.

In this brief notice we can do hardly more than give their dates and limits, leaving their history, and the philosophy of their history, here so succinctly and so well told, to be enjoyed by the reader from the pages of his own copy.

To the superstitious epoch is assigned a period of about 3,600 years, extending from the earliest primitive times to Hippocrates, or about B. C. 400. Its name expresses the character it wore, and one can well imagine how the medical artists of those days reveled in charms, and incantations, and religious rites. But as an age it passed away. Still, we have heard within the year, in this land of medical common schools, of the living brethren of a dead consumptive making of his heart and lungs a prophylactic burnt-offering to secure the soundness of their own; and we ourselves have read in city journals advertisements of sale of highly gifted cauls, at prices as fabulous as the properties claimed for them. How, like the seeds found in old Egyptian mummies do these wrinkled delusions sprout again!

To the second epoch is assigned the period of about 2,000 years, that lies between the time of Hippocrates, 400 B. C., and Harvey, A. D. 1620. But of the paternal, authoritative, and long-prevailing influence of the name and writings of Hippocrates—of Galen's labors—of sect-absorbing sect—of torpid centuries—of periods of medical skepticism, and of occult pseudo-science that ushered in the true, we have no time particularly to speak. If, during this long period, there was sometimes lifted up a little corner of the cloud that wrapped Truth's "sacred summit," yet, by the time the world looked up to catch the light, the fold was drawn again across its brow.

The 16th century was one of increase in the world of knowledge. By the new activity then put forth, the golden circle of all the sciences was greatly blessed. Brilliant discoveries in one department, while ringing through the world, seemed but the pealing preludes to others still more brilliant in other departments. In a century in which lived such men as Bacon, Newton, Galileo, Kepler, and the like, Harvey made deductively that discovery which, in the annals of our science, we may truly designate as grand—the circulation of the blood. The third epoch of systematized knowledge, or that of the actual science

of medicine, begins, then, with Harvey's time, and ends we know not yet in what millennium day of truth. A brief abstract of the progress of our science from the time the influence of this discovery began to be felt, down to the present, together with the mention of some of the names of those who helped to shape its course, all which we must omit, bring us at length to the personally interesting inquiry, of what is the present condition of our science.

Following the divisions already given, we find in the science of structure, that descriptive and surgical anatomy are nearly complete; and, also, as far as facts are concerned, pathological anatomy to be nearly in the same condition. Until new means or paths of observation are discovered, this latter branch can hope to advance but little beyond its present point of development. In histology, microscopic and comparative anatomy, there are both room for progress and reason to expect acquisitions valuable to physiology and pathology.

In the recent rapid advances made in the science of function, there is much occasion for just congratulation and even scientific pride, and yet the physiology and pathology of the present day seem to our author altogether too intensely chemical. An emphatic protest is entered against surrendering into the hands of those mostly conversant with another style of facts, and chiefly imbued by the spirit of a different science, the decisions of questions peculiarly belonging to those who, if not born, should be thorough-bred, physiologists and pathologists. Chemistry should be admitted as an aid and a companion, but not as a directing and controlling power. In the approximative resolution of the higher problems in these departments, she can only supply her own peculiar equation.

Physiology and pathology are not positive sciences, neither—because in some respects inductive—ought it to be thought that they must be advanced similarly to that of chemistry. But physiology is not only an inductive and deductive, but it is also a teleological science, which chemistry is not, and therefore is peculiar. Ignoring the organism in his devotion to the materials composing and sustaining it, the chemist would, out of C. H. N. O. plus a few crystallizable salts, plus a force identical with affinity, construct and run this complex human machine like any other piece of mechanism of which the patent had expired; and yet no cunning mixture or morphologic administration of these elements ever makes the epithelium cells of a gastric tubule secrete a juice that would subserve the purposes of intellection, or ever develops the germs of owls into unfeathered philosophers.

It is then the organism of the cell itself, acting through its own pe-

culiar vital force on these elements, and not these elements merely acting on the organism, that determines and controls the result.

In regard to the science of conservation, making the third and last of the subdivisions we have followed, we find that public hygiene has of late received, and is now receiving in all civilized countries, especial attention. When individually and collectively the human race not only recognizes the truth, but regulates its life by the already demonstrated principles of hygienic science, there will be seen astonishing results in the amelioration of mankind, not only physically, but also morally. That day, in spite of municipal blindness and fashionable folly, we believe will come.

The therapeutic branch of the science of conservation has advanced not so much by the discovery of new medicinal armamenta, as by giving greater simplicity and certainty to those we already have, and above all by the recognition of nature as the basic ingredient of every truly scientific prescription. Ever since disease began its course of medicine, this patient, silent, suffering angel has been doing her charitable work of renovation, as it were, unseen; but her day is coming, in which it will be accounted glory enough if we can but aid with our own poor skill the efficacy of her blessed efforts. To the complexion given by the responses to these two questions must all therapeutic exhibitions come at last. 1st, "Shall I in this case prescribe any medicine?" And if nature, with rest and appropriate diet, be adjudged insufficient for the cure; then, 2d, "What remedy shall be given, and what is the least amount that will accomplish the desired object?" Very slowly, and as it were something loth, we seem to pass in this department from our present ruder realm to the higher region indicated by these questions, and to the higher exercise of the faculties they imply. But our faces are turned thitherwards.

The numerical method initiated by Louis, and from which so much was claimed to regulate and define this branch of medicine, is found to be powerless. However interesting may be its statistics, we are not warranted in deducing from them conclusions binding in this department. The average of results is never the same as any one particular result, and is therefore inapplicable as the rule in that particular case. The value of the method is best shown in the barren record of improvement and discovery attendant upon its use.

To sum up now what has been said of the progress of our science, we feel that it is no longer, as Bacon said of it in his time, "a light and slender thing," but a grand and imperishable structure; which, although imperfect and unfinished, is worthy of our admiration, and

of the progressive and philosophical spirit that is year by year ennobling and advancing it to completion.

Finally, we are met by the claims of medical science upon medical men. How discharge them, and pay the debt that Bacon says is due from every one to his profession? The answer given is twofold—by our own labors, and by our encouragement of the labors of others. Three methods are designated under the first division of the answer: 1st. By ascertaining and correcting existing errors; 2d. By collecting and arranging established facts in monographs, treatises, &c.; and 3d. By making new additions to, or actual discoveries in, our science. Independent thought, and yet not skepticism, is the implied requisite for him pursuing the first; a careful analytic skill, a patient, logical, and systematic exercise of the rational faculties, seem necessary for the second; while he, who would succeed in the third, must be thoroughly grounded in the knowledge of everything already achieved in the department he seeks to advance, and have definite ideas of the object he wishes to accomplish. He must not confound observational with rational discovery, nor mistake "original investigation" for originality. He must also have the moral elements of a faith that makes the mind devout—a perseverance that counts not by any statutory system of ten, but, if need be, by one of ten thousand hours—a courage and an independence that fears not the epithet of theorist, and which, freely using the footholds and the scaffolding of those who have gone before, dares essay still higher points of view. With all these qualities intensified by "a glowing life" of labor, he may, perhaps, more than cancel the debt he owes his beloved science, by writing across it the glorious record of some happy discovery.

Of those pressing the paths we have indicated, by far the greater number crowd the last. Some there are, we know to be inspired with the love that wrestles patiently with doubt and pain, and complicated error, for the blessing of proclaiming universal truth. Some, perhaps, there may be, who feel the magnitude of the obligation we have spoken of to be so great, that nothing but some brilliant discovery can wipe it out. And then again, perhaps, there are some who think that Harvey, Hunter, Sydenham, and the like, all took that way to eminence, and that, therefore, it is the only respectable and orthodox route. Of course, there could be no exceptions taken to their choice, did they hold right bravely on with a steady heart and silent tongue until their goal was reached; but many, anticipating the crowns they long for, find a self-sufficient glory in merely kicking up the dust which the feet of their immortal predecessors trod upon. Of course no generous

mind begrudges them the straggling facts they glean where mighty reapers have gone before, but it is the thrusting of their puny sheaves into the face and eyes of everybody, and the Io-shout of triumph over their gatherings, that make the spectacle unpleasant. For one true-hearted, patient, modest, earnest toiler, such as Science, were she a living Goddess, would grow kind to look upon, there are twenty of these medical babblers in the land.

To place this matter of discovery in its proper light, the true distinction between those that are observational and those that are rational—between discoveries of facts and discoveries of principles—should be held in mind. A proper education of the senses may achieve the first, but the second demands the sturdy exercise of reason and all the higher faculties of mind. He who succeeds in the first is the finder merely; in the second, the true discoverer. If, in emulation so pure, and brotherly, and titleless as is supposed to actuate both these classes, there could be conceived some outward insignia to mark the relative rank of each, we think the higher order should be worn, not by him who finds, but by him who discovers. "But," as our author says, "those who seek for facts alone have ever made the greatest parade respecting their investigations; and this, too, generally, whether they lead to any positive result or not. So that now-a-days it seems to be by some accounted a greater glory to be said to be engaged in original investigations, though they never report a new fact discovered, than to have actually discovered a new law in science."

As if one should hear a "finder" say to a fellow-"seeker," "Have you seen 'A's new work on Physiology, or B's new work on Pathology?" If not, don't waste your valuable time. I've looked them over. There's nothing in them—nothing in them. Some visionary talk, perhaps, about the diastaltic functions of the spinal cord—some theorizing about the intimate relations between sthenic disease and the process of nutrition, but positively there are no new facts given—not a single new observation made—why, even the illustrations of the works are old!" And then, as if he would "do" his listener "proud," he hands him over the proof-sheets of some "original investigations," in which, by the repetition of twelve vivisections, he has found the fact enunciated, by some distinguished experimenter, that albuminose in solution in gastric juice interferes with the operation of Trommer's test for grape-sugar, to be strictly true; or perhaps he tells him that from a beautiful series of observations upon 100 cases of persons in the last stage of phthisis, the average of the pulse at 6 A. M. was 115,

at 9 A. M. 117, at 12 M. and 3 P. M. 119, and at 6 P. M., singular to relate, 123 in the minute.

Now, in these *tempora dura* what we want is not facts, as Dickens writes it, so much as men whose philosophic and gifted minds, brooding over the chaotic masses of this material that now impede our progress, shall educe for higher equations the living principle that runs through them. Ho! for these "coming men."

Did space permit, we would gladly extract entire the criticism of our author, which crushes off, à l'écraseur, the morbid outgrowth of meaning attached in many minds to the terms "original investigation" and "originality;" but as it is, we can only give his following catholic conclusions.

"A truly original scientific work is one in which original investigations, ideas, or principles, or all these together, predominate. Tested thus, it is true that original works are very rare. There is much writing, with comparatively little new matter. Most that is done is 'vertiginous, or in the way of perpetual rotation;'* and most authors who profess the most originality, fill their works with egotism instead. But original works, as just defined, are by no means indispensable to the advancement of science; while *new* works are so, in order to incorporate into it, in a permanent form, the new facts and truths which are successively ascertained. On the other hand, also, an original work, like original investigations, as has been shown, may be entirely barren and useless. The question, then, suggested by the announcement of each new scientific work should be, not 'is it original?' but 'is it truly useful?' i. e., will it conduce more than its predecessors to the advancement of science?"

The second method in which our science may be indirectly advanced, is by our encouragement of the labors of others. The thousand ways in which this may be done need not be specified. The tact and kind consideration of every generous heart will either find or invent them. At least, if we be not encouragers, we should not be discouragers; for of all the lighter grotesque forms of mental disease, that magnificent blindness that will not see another's merit while it is another's, is most pitiable, because self-imposed, and so mean.

We part with our author at his closing inculcation to the Fellows of the Academy, to remember that they were men, and that they were brothers—which simple, but expressive words, whoever recollects the internecine conflict that followed hard upon their utterance, must think the gentle—fellows very soon forgot.

* De Augmentis, p. 1.

We should be glad to see this address widely disseminated. There are, we know, some thin minds in which, as in heartless soil, nothing comprehensive ever grows; but there are others, like rich, deep, mellow fields, that palpitate beneath the sun. In such as these the thoughts of this address like seeds would germinate and grow, and in due season, give back to science the increase of a hundred-fold.

J. V. L.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume VII. Edward—Fueros. New York: D. Appleton & Co. 1859. Pp. 786.

The receipt of each volume of this Cyclopædia, as it comes from the press, is hailed by a large number of students with pleasure. The general character for accuracy exhibited in its predecessors is retained by the seventh volume, and bids us believe that the editors are striving to make their work as free from errors as possible. We have found the volumes already published so convenient for reference, that we await the appearance of the whole work with much anxiety. Our medical brethren whose professional duties prevent them from making extensive forays into other departments of study, will find this Cyclopædia a very valuable aid in their private studies.

I. H. S.

EDITORIAL AND MISCELLANEOUS.

— The Academy of Medicine have again been at work, and the whole profession, and most of the unprofessional public, are amused thereby. Yellow fever was the topic—fomites, contagion, infection, were the words bandied about—now explained with all the elaborateness of half a dozen dictionaries—now with all the sharpness of a slashing editor—again with the gravity of the venerable practitioner, and more than once with the authority of the professor and writer. Some of the speakers appear to have thought that the whole world awaited in breathless suspense to hear what would be the vote of the Academy on the resolutions before them, while others knew only too well that they were making themselves ridiculous.

The whole matter can be stated very briefly. A resolution adopted

by the Quarantine Convention, at its last session, maintaining that "*personal* quarantine of cases of yellow fever may be safely abolished, provided that *fomites* of every kind be rigidly restricted," was offered for the endorsement of the Academy. That endorsement was urged by Drs. Griscom, A. H. Stevens, and others, (the first having made an elaborate argument upon it,) and opposed by Drs. Reese, Francis, Mott, and others.

Into these arguments we do not think it necessary to enter, or to follow the sophistries which were advanced as truths. The discussion has ended, as it ought to have done without so much talk, by laying the matter upon the table, where, we trust, it will always remain.

The fact is, that yellow fever is sometimes, in the latitude of New York, communicated from the sick to the attendants, or to persons in the vicinity. Whatever theory about fomites, or peculiar conditions of the air, or nidus, or electric, or telluric influences may be broached, the public knows that the disease does sometimes produce great ravages, and that the only thing that will prevent its spreading, though that sometimes fails, is quarantine. It is not strange, then, that they laugh at this hair-splitting of theorists. In every profession there is a tendency in those learned in it to occupy themselves with questions which have been long settled by the decisions of common sense, or else are of no importance practically. This question of yellow fever, as argued before the Academy, is of this class, and we regret that its effect must be to injure the Academy, (only temporarily, we trust,) and to afford to the public another source of ridicule of the profession.

— To chronicle the opening of the medical schools of this city is all that our space will allow. The usual introductory have been delivered, and the professors are now hard at work, teaching those who have come to this city for their medical education. It is usual to say that the number of students is unusually large at this period of the session, but we do not know that this is the fact; we can say, however, that the efforts of the professors to give more thorough instruction is greater than ever before, and we trust their efforts will be crowned with success. In regard to introductions we have a word to say, and that is not of them, but to those who give them. An opportunity at the opening of the session of medical lectures, by the now classical introductory, is afforded to him who will accept of it, to set forth some new truth, enunciate a new doctrine, or substantiate an old one; to speak with emphasis upon some of the topics which have engaged the medical world during the past year, or attracted by its

popular bearing, the unprofessional public. An opportunity is offered to express *an opinion*, but it would seem that there is nothing new under the sun, for the same laudatory phrases are retailed, the same expressions of mutual admiration are indulged in, and the applauses come in at the same places. It is time that this was changed, and we would recommend for this purpose that some of the younger men in our hospital staffs and in our colleges should be called upon to start the new ball in motion. Let us hear from our younger brethren.

— We have received from Dr. C. F. Heywood, the local Secretary, the first three volumes of the New Sydenham Society's publications, consisting of *Diday on Infantile Syphilis*, *Gooch on some of the more important Diseases of Women and Children*, and *Selected Memoirs on Diphtheria*. These works, besides their intrinsic value, are handsomely printed, uniformly bound in good style, of a convenient size, and are such works as every physician desires to put in his library. The other volumes to constitute the remaining publications of the first year, are a work *On the Anatomy and Physiology of the Spinal Cord*, by Schröder Van de Kolk; another *On the Medulla Oblongata, and on the Proximate Cause and Rational Treatment of Epilepsy*, by the same author: these two to be bound in one volume; and a work by Dr. Bright, entitled *Clinical Memoirs on Abdominal Tumors and Intumescence*, edited by Dr. Barlow.

The subscription price to this Society, insuring a copy of all these publications, is a guinea, equivalent to five dollars and twenty-five cents. Dr. C. F. Heywood, 66 West 20th Street, receives subscriptions.

— We learn that Scanzoni's work on Diseases of the Sexual Organs of Women is being translated into English by Dr. A. K. Gardner, of this city, and is announced for publication by R. De Witt.

A sketch of this distinguished obstetrician we gave in the August number of the MONTHLY.

— We have received from Messrs. Lindsay & Blakiston the *Physician's Visiting List, Diary, and Book of Engagements*, for 1860, which is so well known to the profession generally, that we need only announce its publication. There is no material alteration from the arrangement of last year, which, for its simplicity and adaptedness to the every-day wants of the practitioner, commends the book to all.

— W. A. Townsend & Co., of this city, send us the *Physician's Hand-Book of Practice for 1860*. This is another pocket volume,

something similar in external form to that last noticed, but internally arranged in a more complex and complete manner. Besides the visiting list, it contains a brief compendium of practice, a list of poisons and antidotes, tables of weights and measures, of baths, of remedies, and an obstetric calendar, newly, and, so far as we can judge, usefully arranged.

— *Comparative Medical Educational Advantages of London and New York.*—J. J. Chisolm, M.D., Professor of Surgery in the Medical College of South Carolina, has been visiting the European hospitals, and from London he writes to the *Charleston Medical Journal and Review*. "As regards general medicine and surgery," he says, "we find that we are quite as advanced as the English, and that they have very little to teach us." "New York already offers every inducement which London possesses, with the additional advantage of being much nearer home, with much less expensive living. New York hospitals are just as well endowed, contents as varied and as interesting, and officials much more communicative and willing to give information. The medical colleges in London are very numerous, but the classes are small when compared to those of New York, if I may judge from the numbers I saw attending the leading men of the day."

That this is true, no unbiased man will deny, who has visited both cities. The educational resources of New York, accessible to the medical student, are not yet fully appreciated.

Persulphate of Iron as a Hæmostatic.—Monsel, of France, first proposed the use of this excellent hæmostatic, and as its use is becoming more general, we give our readers *his* process for its preparation.

"Place in a porcelain capsule 100 grammes of distilled water, and 10 grammes of sulphuric acid, raise the mixture to the boiling point, and then add 50 grammes of protosulphate of iron. After complete solution of the latter, pour, in small quantities, into the boiling liquid 16 grammes of nitric acid at 35°. When the rapid discharge of orange-colored vapors has ceased, add, in portions, 50 grammes of the protosulphate of iron, the solution of which will produce again reddish fumes, and will cause the excess of nitric acid to disappear. The volume of the liquid is then raised to 100 grammes, by the aid of distilled water, cooled and filtered."

Monsel suggests that 100 grammes of this solution be treated with a few grammes of linseed oil, and that the mixture be shaken three or four times in twelve hours. There is thus obtained a perfectly neutral solution, having no nitrous odor, and susceptible of preservation for

a very long time. The solution is limpid, of a very dark brownish-red, inodorous, and with an extremely astringent, but non-caustic taste. It marks 45° of the *pèse-sels*. When concentrated by boiling, it assumes the consistence of honey, and if, in that condition, it is spread in thin layers on plates of glass, and dried at a temperature of about 100° Fahrenheit, it can be obtained in reddish-yellow scales, transparent, like those of the citrate and tartrate of iron.—*Journ. de Phar. et de Chim.*

A new Cavity, called by its discoverer "preperitoneal," has been announced by M. Retzius. It has hitherto, he says, escaped the observation of anatomists. In examining the disposition of the transverse muscles and their aponeuroses, he found this circumscribed cavity, which serves to facilitate the play, distention, and contraction of the bladder.

Dr. Compérat has got a cure for ascarides, which has never failed in his hands. It is a simple injection of water, containing five, ten, fifteen, or twenty drops of sulphuric ether, according to the age of the individual, and repeated more or less frequently, according to the number of the animals present. This agent, he says, has a double advantage. By its subtilty it readily enters into and destroys the larva; and by its antispasmodic powers it allays the spasmodic and nervous symptoms produced by the animals.

Books and Pamphlets Received.

Pathological and Practical Observations on Diseases of the Alimentary Canal, Esophagus, Stomach, Cæcum, and Intestines. By S. O. Habershon, M.D., &c. Philadelphia: Blanchard & Lea. 1859.

A Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart. By Austin Flint, M.D., &c. Philadelphia: Blanchard & Lea. 1859.

An Introduction to Practical Pharmacy; designed as a Text-Book for the Student, and as a Guide for the Physician and Pharmaceutist, with many Formulas and Prescriptions. By Edward Parish, M.D., &c. Second Edition, greatly enlarged and improved; 246 illustrations. Philadelphia: Blanchard & Lea. 1859.

A Treatise on Syphilis in New-Born Children and Infants at the Breast. By P. Diday, M.D., &c.; translated by G. Whitley, M.D. The New Sydenham Society, London. 1859.

Gooch on some of the more Important Diseases peculiar to Women; with other Papers. Prefatory Essay by Robert Ferguson, M.D., &c. The New Sydenham Society, London. 1859.

Memoirs on Diphtheria. From the writings of Bretonneau, Guersant, Trousseau, Bouchut, Empis, and Daviot. Selected and translated by Robert Hunter Semple, M.D. With a Bibliographical Appendix, by John Chatto. The New Sydenham Society, London. 1859.

Lectures on Surgical Pathology, delivered at the Royal College of Surgeons of England. By James Paget, F.R.S., &c. Second American Edition. Philadelphia: Lindsay & Blakiston. 1859.

The Treatment of Lateral Curvature of the Spine, by Specific Exercises. By Charles F. Taylor, M.D. New York.

Transactions of the New Hampshire Medical Society, Sixty-ninth Anniversary. Held at Concord, May 31st and June 1st, 1859. Manchester: 1859.

Address at the opening of the Medical Department of the University of the Pacific, at San Francisco. 1859.